SafetyStock Technical Guide

Functional Overview and Implementation Instructions

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SafetyStock

SafetyStock™ is a bar code confirmation system that promotes patient safety by minimizing the opportunity for stocking and dispensing errors. SafetyStock users scan bar codes to confirm the identity of medication and supply products for restock, selected issues, and returns to the Color Touch cabinet.

Technical Overview

SafetyStock is an Omnicell option. It requires the purchase of an Option Key. Restock, Issue and Bin Bar Code Confirmation functions will not work until SafetyStock is properly enabled. Other related features and enhancements, such as Automatic Stock-out, function independently of SafetyStock and do not require an Option Key. The SafetyStock feature is primarily used for medication restocking and issuing functions, however, can also be used for supply items.

Existing cabinet functionality directs both the pharmacy technician and the nurse to the correct location during restock and issue transactions. SafetyStock provides an additional layer of safety, using bar code scanning to ensure that medication items are restocked correctly and, if so configured, that the correct medication is issued from the cabinet.

SafetyStock is also designed for facilities using Omnicell WorkflowRx. In such cases, SafetyStock uses the Restock Labels generated by WorkflowRx, and is able to receive restock information from and send restock confirmations to WorkflowRx. For non-WorkflowRx accounts, Pick and Restock labels and reports are generated at the OmniScanner Shelf Label Bar Code. In either case, an approved model of SATO printer is required (see System Requirements/Compatibility).

SafetyStock bar code confirmation involves three primary elements:

- Labeling and scanning for restock confirmation
- Labeling and scanning for issue and return confirmation (optional)
- Labeling and scanning for bin location confirmation (optional)

In addition, the following restock options and enhancements are introduced with this feature:

- Selective Restock

  Allows users to manually generate a restock at the OmniCenter for select items, outside of the normal restock process.

- Automatic stock-out restock generation

  Automatically generates a restock for specified items that reach a zero quantity, within a configurable time period prior to normal restock.

- Customizable default printer settings

  Provide the ability to specify different default printers for various functions, such as restock reports and label printing.

- Restock tab user interface changes

  Feature separates screens for restock by route, by cabinet, by item (Selective Restock), and for reprints, along with numerous other UI enhancements.

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- Addition of Restock Configuration section to Administration tab, Setup Admin Type.

  New Restock Configuration screens allow users to set defaults for various restock functions, such as default printer settings.

System Requirements/Compatibility

- OmniCenter and Color Touch cabinets running Omnicell 8100 software or higher. Blue Screen and Sure-Med DOS cabinets are not supported.
- A supported Symbol bar code scanner at the OmniCenter.
- A supported Symbol bar code scanner at each cabinet.

  One scanner per software host, maximum distance equal to three cells, side-by-side.
- A SATO printer to generate restock labels.
- A valid Omnicell Option Key (encrypted with the allowable number of cabinets).

Hardware Installation

This section covers the hardware installation of the SafetyStock scanner (for various cabinet types). Installation can be performed at the customer facility by a qualified Omnicell representative.

Important: SafetyStock is only supported on Color Touch cabinets running Omnicell 8100 software (5.5.1.x) or higher.

Overview

Hardware installation procedures vary by product. Each type uses a different kit:

- OmniRX, Half-Cell, or OmniRX TT [kit #20-6032]
- Implant Tracking [kit #12-6006]
- OmniSupplier [kit #20-6033]
- OmniCenter or OCRA (OmniCenter Remote Access) machines [kit #20-6031]
- SecureVault [kit #20-6039]

OmniRx, Half Cell, or OmniRx TT

The following instructions apply to SafetyStock scanner for OmniRx, Half Cell, or the OmniRX TT using kit #20-6032.

Required Tools

- T-10 Torx driver
- ESD wristband
- Cam lock key #2036

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Required Kit/Parts

The following figures display the contents of the scanner kit (#20-6032). See "Parts/Kit List" on page A-1 for more kit details.

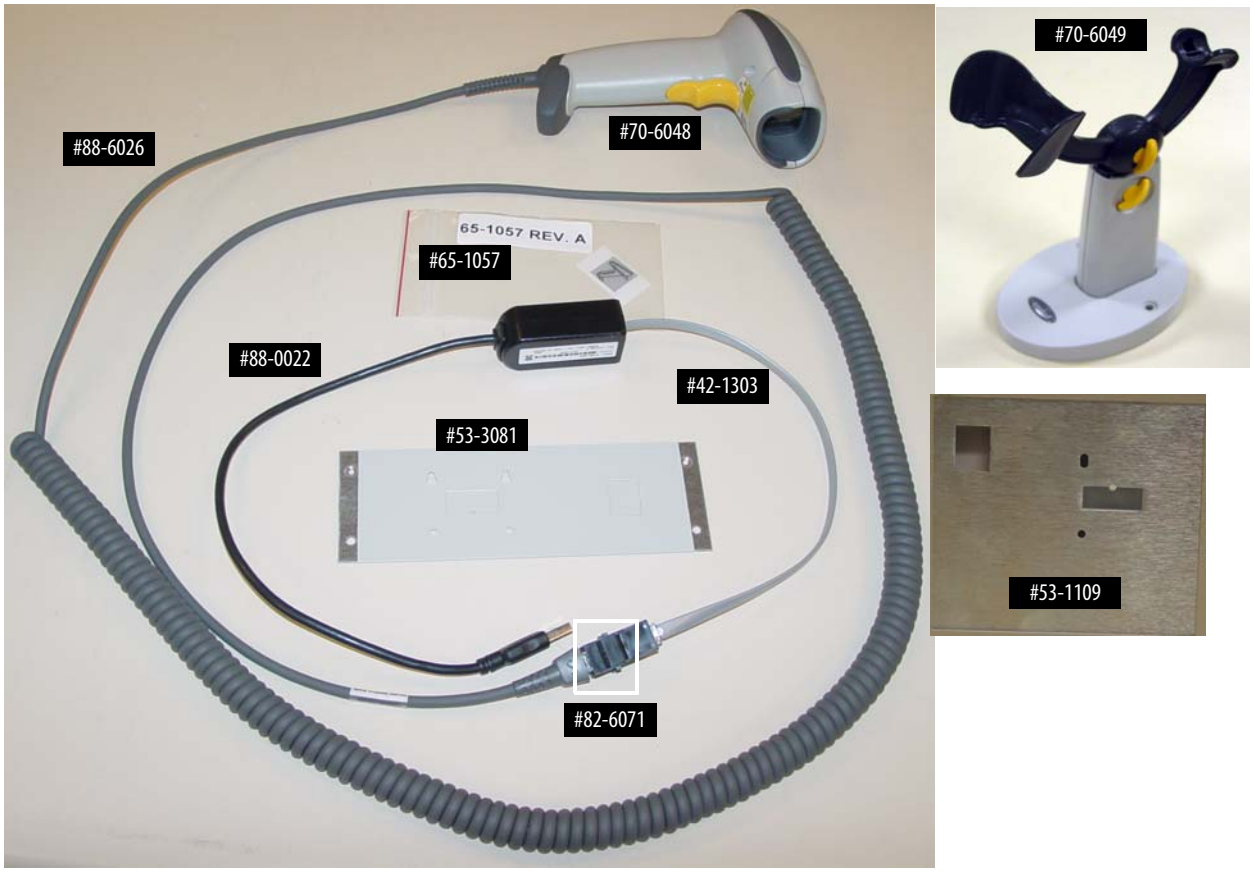

Figure 1-1. Kit #12-1266

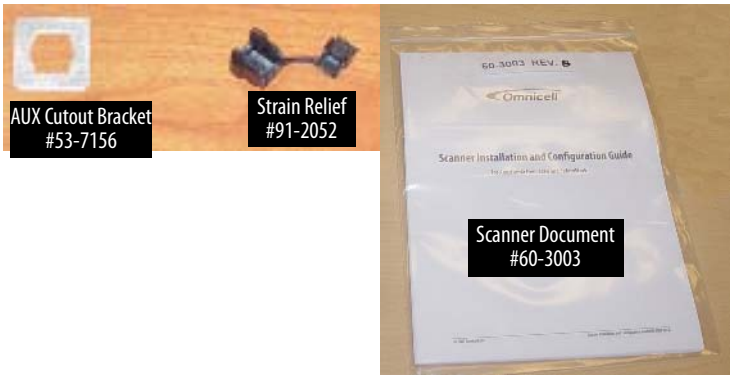

Figure 1-2. Parts from kits #14-1244, #20-6032

Cabinet Preparation

1. Log on to the **Administration** menu.
2. Press **Exit To Shell**.

3. Press **OK** on the confirmation window.
4. Select the **Shutdown On Exit** option in the Exit the Shell section.
5. Press **Exit The Shell**.
6. Power down the cabinet and disconnect the power cord.
7. Unlock the cabinet top in the back using cam lock key #2036 (#92-1008).

Figure 1-3. Unlocking the cabinet top

8. Lift the cabinet top from the back on its hinge. The top is not removed.
9. Prop up the cabinet top with a stand. A switch panel extrusion can be used.

Caution: The cabinet lid is heavy and must be propped up securely. If it came down on its own, it could cause injury.

Figure 1-4. Accessing the electronics sled

Caution: Put on an ESD wristband and secure it to a ground before working in the electronics sled.

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Cable Connections

1. Disconnect the RJ-12 coupler from the #12-1266 Bar Code Scanner Manufacturing Assembly Kit. The adapter cable (#42-1303) remains connected to the Synapse adapter and the USB cable (#88-0022). The scanner cable (#88-6026) remains connected to the scanner (#70-6048).

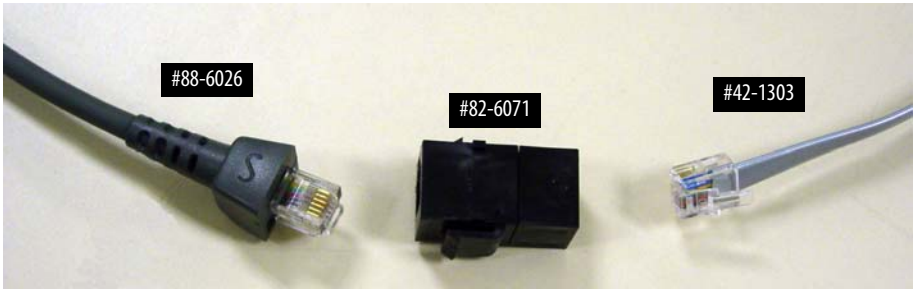

Figure 1-5. RJ-12 coupler from kit

2. Connect the USB Synapse cable (#88-0022) from the kit into the mother board.

Note: It may be necessary to move any existing USB cables to the lower USB port for ease of installment.

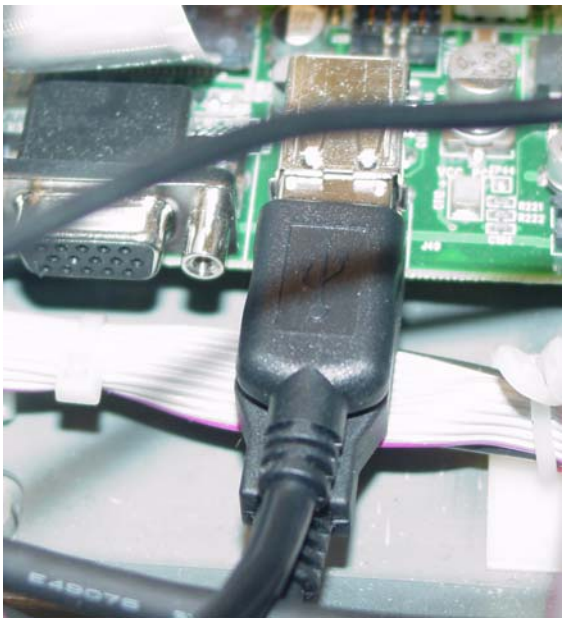

Figure 1-6. Connecting the USB cable to the motherboard

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A number situations are possible concerning the coupler on the OmniRx. See the following table for the procedure that goes with the given situation. For all other cabinet types, go to Step 6.

Rear plate bracket present	Aux Port Available	Cutout big enough for RJ-12 Connector	Next Step
No	Yes	Yes	Step 3
No	Yes	No	Step 4
No	No	N/A	Step 5
Yes	N/A	N/A	Step 6

Table 1-1. OmniRx situations and related steps

Important: Always use the kit's plate to replace the rear plate bracket on the OmniRx (step 6) if it exists. This will avoid extra work later or sacrificing an Aux port for a future peripheral addition. Existing back plate brackets may not have a cutout for a remote antenna in case the OmniTT were to be made wireless later.

Available cutouts in the back of the sled may need to be punched out if there is no Aux port in place and no back plate bracket. These cutouts may be large enough for the RJ-12 coupler (step 3). If not, a strain relief is used to secure the cable to the sled (step 4) with the cable connected to the coupler *outside* the sled. Care is needed to ensure the cable is not easily disconnected.

Step 5 is used where there is no back plate bracket and no open Aux ports/cutouts. The scanner and Aux port share the same sled opening with cables connected to their couplers *outside* the sled. This method allows the addition of the scanner without sacrificing the use of the peripheral. Care is needed to ensure cables are not easily disconnected.

3. [OmniRX] If there is no rear plate bracket and the available Aux port cutout is large enough for the RJ-12 coupler, perform the following steps:
   a. Disconnect the left most AUX coupler (as viewed from the back) and set it inside the sled with its cable (or) punch out the available cutout if there is no Aux port in place.
   b. Install the RJ-12 coupler in the AUX coupler's place.
   c. Connect the adapter cable (#42-1303) to the in side of the RJ-12 coupler.
   d. Proceed to Step 7.
4. [OmniRx] If there is no rear plate bracket and the available Aux port cutout is not large enough for the RJ-12 coupler, perform the following steps:
   a. Disconnect the left most AUX coupler (as viewed from the back) and set it inside the sled with its cable (or) punch out the available cutout if there is no Aux port in place.
   b. Thread the adapter cable (#42-1303) through the cutout bracket (#53-7156) inside the sled.

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c. Feed the adapter cable (#42-1303) through the cutout opening.

Figure 1-7. Threading the communications cable (OmniRx)

d. Place the strain relief (#91-2052) around the cable on the exterior side.

e. Secure the strain relief around the cable in the cutout opening.

f. Secure cable position on sled interior with a cable tie (#95-6007). This prevents the cable from being pulled out during scanner use.

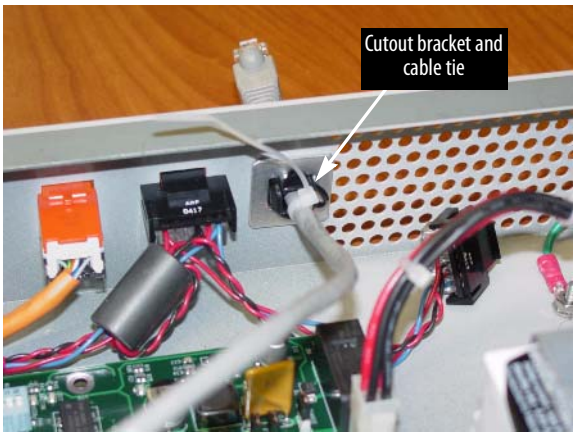

Figure 1-8. Securing the adapter cable (#42-1303) (OmniRx)

g. Connect the adapter cable (#42-1303) to the RJ-12 coupler.

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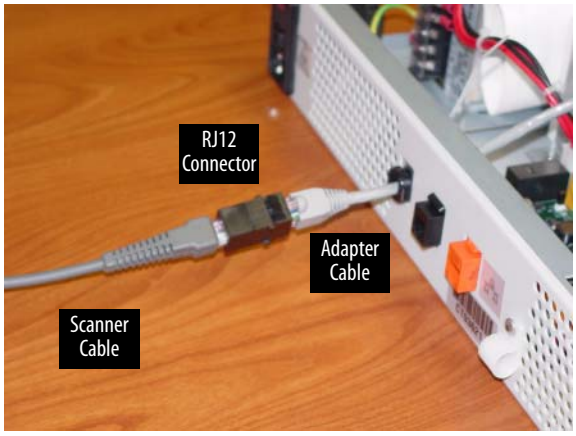

Figure 1-9. Connecting the adapter cable (#42-1303) to the RJ-12 connector (OmniRx)

h. Proceed to Step 7.

5. [OmniRx] If there is no rear plate bracket and all coupler positions are being used, perform the following steps:
   a. Disconnect the AUX cable inside the sled from right-most coupler (as viewed from the front) and remove the existing coupler.
   b. Route both the adapter cable (#42-1303) and the AUX cable through the empty coupler hole.
   c. Connect the cables to their coupler (adapter to RJ12, AUX to RJ-12) outside the sled, then bundle and secure the cables with a cable tie inside the sled.
   d. Proceed to Step 7.
6. If there is a rear plate bracket, perform the following steps:

Note: This step is used for all cabinets (Half Cell, Anesthesia TT and OmniRX TT) and OmniRx with a rear plate bracket.

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a. Punch out the cutout on the kit's rear plate bracket (#53-3081).

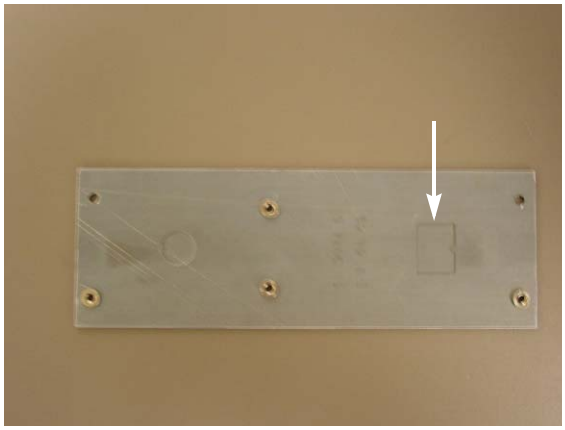

Figure 1-10. Punching out the cutout

b. [Other cabinets] Remove the existing rear plate bracket.

c. Install the rear plate bracket with the cutout opening.

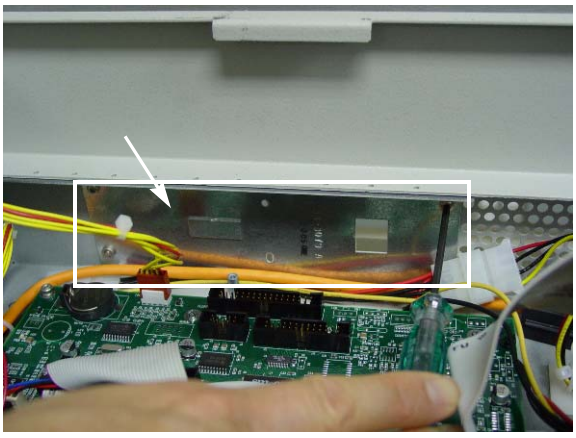

Figure 1-11. Installing the rear plate bracket with a cutout opening

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d. Install the RJ-12 coupler (#82-6071) in the port opening.

Figure 1-12. Installing the RJ-12 coupler

e. Connect the adapter cable (#42-1303) to the RJ-12 coupler.

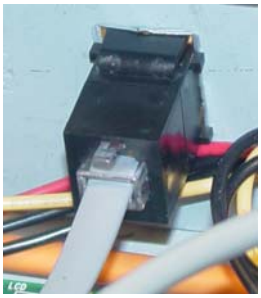

Figure 1-13. Connecting the adapter cable to the RJ-12 coupler

f. Route and bundle the cables neatly with existing communications cables using the ties provided in the kit as needed.

7. Remove the stand (switch panel extrusion) used to prop the cabinet lid.
8. Carefully lower the lid on its hinge from the back.
9. Lock the lid in back with the cam lock key.

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Scanner Connection

1. Remove the ESD wristband.
2. Place the scanner stand (#70-6049) in the desired location on the lid.

Figure 1-14. Placing the scanner stand

Caution: The scanner cable must be connected correctly or the scanner will not work. The 10-pin RJ-45 end of the scanner cable connects in the scanner handle. The 6-pin RJ-12 end of the scanner cable connects to the RJ-12 connector in the back plate where the scanner label (65-1057) is placed. See Figure 1-16.

3. Connect the 10-pin end of the scanner cable (#88-6026) to the scanner (#70-6048) at the base of the handle, then place the scanner in its cradle.

Figure 1-15. Connecting the scanner cable to the scanner

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4. Connect the 6-pin end of the scanner cable to the RJ-12 coupler in the back of the sled.

Figure 1-16. Connecting the scanner cable to the RJ-12 coupler and attaching the scanner label

5. Place the scanner label/sticker (#65-1057) next to the scanner's coupler.

Final Procedures

1. Connect the power cord and power up the cabinet.

Figure 1-17. Turning on the power

Important: The scanner is programmed prior to initial use. Should the scanner fail to recognize supported bar code types, reprogramming may be required. For more scanner-specific information, see the Symbol documentation shipped with the scanner.

Note: Depending on the cabinet's operating system version, it may be necessary to install files or drivers associated with the USB Human Interface Devices.

2. Test the scanner by reading a test bar code twice while the logon screen is displayed. The window changes to an error message after the first read, then returns to the login screen on the second read. The bar code information should be listed in the User ID box.
3. Perform the software implementation procedures. See "Implementation" on page 1-53.

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OmniSupplier

The following instructions apply to SafetyStock scanner installation for OmniSupplier Color Touch cabinets, using manufacturing kit #20-6033.

Required Tools

- T10 torx driver
- 9/64 Allen wrench
- Pliers
- ESD wristband
- Cam lock key #2036

Required Kit/Parts

The OmniSupplier requires kit #20-6033, which contains: kit #12-1266 (items shown on "Required Kit/Parts" on page 1-3), #14-1245 (items shown below).

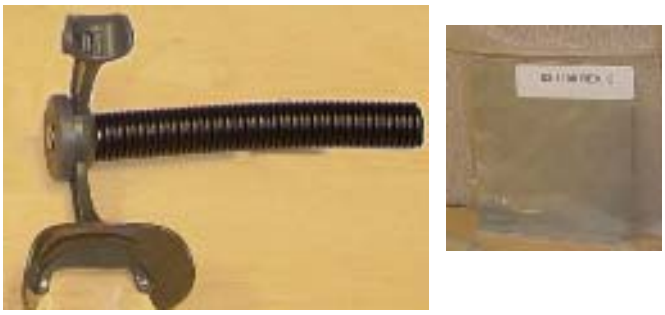

Figure 1-18. Gooseneck assembly and back plate

Cabinet Preparation

1. Perform a graceful shutdown of the cabinet software, then power down the cabinet and disconnect the power cord.
2. Remove the screws securing the PC box to the frame, and slide the PC box forward.
3. Using key #2036, unlock and remove the PC box cover.

Caution: Put on an ESD wristband and secure it to a ground before working on the PC box.

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4. Use the T-10 Torx driver to remove the four 6-32 pan head screws which secure the connector panel plate to the rear of the PC box.

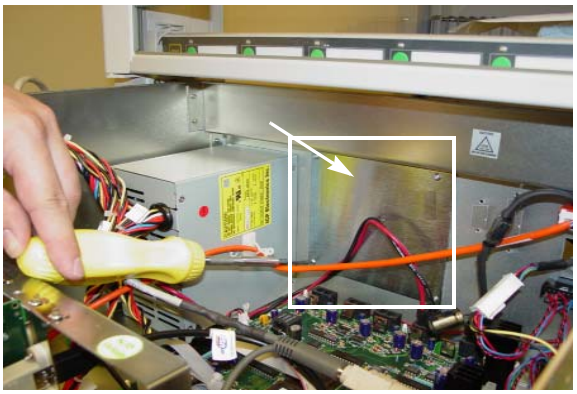

Figure 1-19. Removing the connector plate screws

5. Punch out the cutout on the kit's connector panel plate (#53-1109) or the existing plate if applicable.
6. Install the connector panel plate (from the kit or the existing plate) with the cutout removed with four 6-32 pan head screws and the T-10 Torx driver.
7. Insert the RJ-12 coupler (#82-6071) into the back plate from inside the PC box. The larger section faces inside the electronics tray. The connector's outer connector has the locking tab space facing down. The connector's inner connector has the locking tab space facing up.

Figure 1-20. Insert RJ-12 coupler

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Cable Connections

1. Disconnect the RJ-12 coupler from the conversion kit (#12-1266). The adapter cable (#42-1303) remains connected to the Synapse adapter and the USB cable (#88-0022). The scanner cable (#88-6026) remains connected to the scanner (#70-6048).

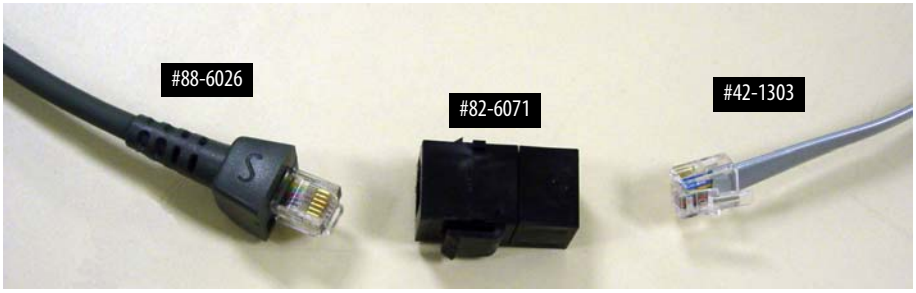

Figure 1-21. RJ-12 coupler from kit

2. Connect the USB Synapse cable (#88-0022) from the kit to the mother board.

Note: It may be necessary to move any existing USB cables to the lower USB port for ease of installment.

Figure 1-22. USB Synapse cable

3. Properly route the cable. Use cable ties to secure cables as needed.

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4. Route and connect the adapter cable (#42-1303) to the RJ-12 coupler inside the PC box.

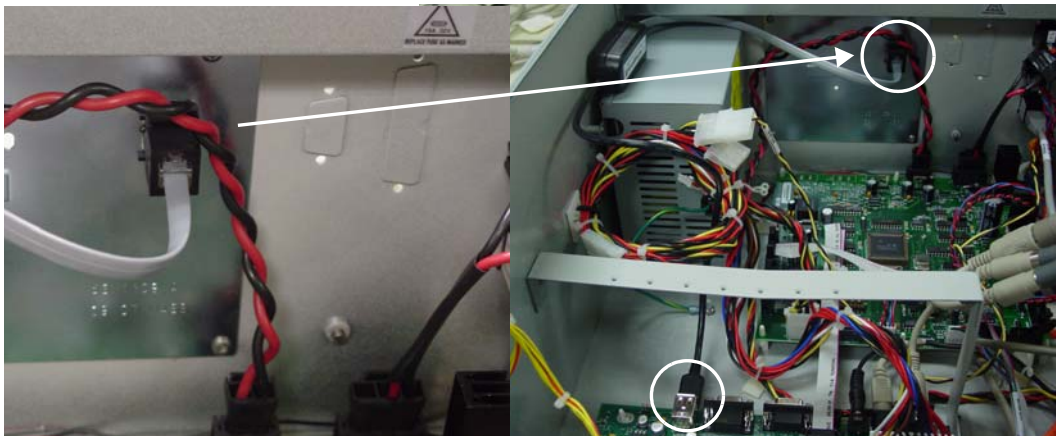

Figure 1-23. Connecting the cable to the coupler inside the PC box; completing cable routing in PC box

5. Replace the PC box lid, then slide in and re-secure the PC box.
6. Remove the ESD wristband.

Scanner Connection

1. Use the 9/64 Allen wrench to remove the front screw (5/16 button head) from the transport handle on the side of the cabinet.

Figure 1-24. Removing the transport handle screw

2. Screw the gooseneck cradle (#15-6002) into the transport handle until it is secure.

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3. Pull back the accordion sleeve and tighten the gooseneck base with pliers.

Figure 1-25. Tightening the gooseneck base

Caution: The scanner cable must be connected correctly or the scanner will not work. The 10-pin RJ 45 sized end of the scanner cable connects in the scanner handle. The 6-pin RJ-12 sized end of the scanner cable connects to the RJ-12 connector in the back plate.

4. Connect the scanner cable (#88-6026) to the scanner (#70-6048) at the base of the handle.

Figure 1-26. Connecting the scanner cable to the scanner

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5. Connect the new scanner cable (#88-6026) into the RJ-12 coupler on the back plate.

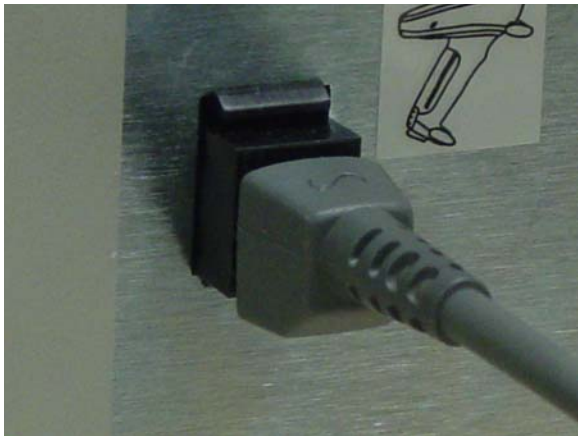

Figure 1-27. Connect scanner cable to RJ-12 coupler

6. Attach the scanner label/sticker (#65-1057) near the coupler.

Final Procedures

1. Reconnect power and reboot the cabinet software.

Important: The scanner is programmed prior to initial use. Should the scanner fail to recognize supported bar code types, reprogramming may be required. For more scanner-specific information, see the Symbol documentation shipped with the scanner.

Note: Depending on the cabinet's operating system version, it may be necessary to install files or drivers associated with the USB Human Interface Devices.

2. Test the scanner by reading a test bar code twice while the logon screen is displayed. The window changes to an error message after the first read, then returns to the login screen on the second read. The bar code information should be listed in the User ID box.
3. Perform the software implementation procedures. See "Implementation" on page 1-53.

OmniCenter/Implant Tracking/OCRA Machines/SecureVault

The following instructions apply to:

- OmniCenter servers and OCRA machines, (kit #20-6031)
- Implant Tracking (kit #12-6006)
- SecureVault (kit #20-6039)

Required Tools

- None

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Required Kit/Parts

OmniCenter Servers and OCRA machines use kit #20-6031. See "Required Kit/Parts" on page 1-3.

Figure 1-28. Scanner kit items for OmniCenter server and OCRA machines

Implant Tracking uses kit #12-6006.

Figure 1-29. Mount bracket and wall mount

SecureVault uses kit #20-6039. The items in this kit are similar to those in kit #14-1243.

Procedure

1. Perform a graceful shutdown of the OmniCenter computer.

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2. Connect the USB end of the scanner cable (#88-6152) into the USB slot in back of the computer.

Figure 1-30. Connecting the scanner cable to the keyboard port

3. Connect the other end of the scanner cable (#88-6152) into the base of the scanner handle.

Figure 1-31. Connecting the scanner cable into the scanner

4. Place the scanner stand (#70-6049) near the OmniCenter.

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5. Place the scanner (#70-6048) in the stand.

Figure 1-32. Placing the scanner into the stand

6. Turn on the computer power.

Important: The scanner is programmed prior to initial use. Should the scanner fail to recognize supported bar code types, reprogramming may be required. For more scanner-specific information, see the Symbol documentation shipped with the scanner.

Note: Depending on the cabinet's operating system version, it may be necessary to install files or drivers associated with the USB Human Interface Devices.

7. Test the scanner by reading a test bar code twice while the logon screen is displayed. The window changes to an error message after the first read, then returns to the login screen on the second read. The bar code information should be listed in the User ID box.
8. Perform the software implementation procedures. Refer to "Implementation" on page 1-53.

Software Functionality

OmniCenter

In order to support the SafetyStock feature—for both WorkflowRx and non-WorkflowRx customers—a number of changes have been made at the OmniCenter. These include modifications to the Administration tab, Restock tab, Database tab Items table, and OmniSupplier and Transactions tables, as well as new and modified reports.

Administration Tab Modifications

Administration tab modifications include the ability to print Bin Confirmation Labels (**Administration** > **OmniSuppliers**), and the addition of a Restock Configuration Setup section (**Administration** > **Setup**).

Printing Bin Confirmation Labels A Bin Confirmation Labels option has been added to the Administration tab, OmniSuppliers Administration type. This allows users to generate and print bin bar code labels, for use with the bin confirmation restock function. Bin confirmation labels are formatted for Avery 5167 or 5267 labels and print to a standard laser printer (8 1/2" x 11" sheet, White, Laser, Permanent-Adhesive; 80 labels per sheet.).

To print one or more sheets of labels, the user selects the **Bin Confirmation Labels** option, types in the number of pages desired, then clicks **Print**.

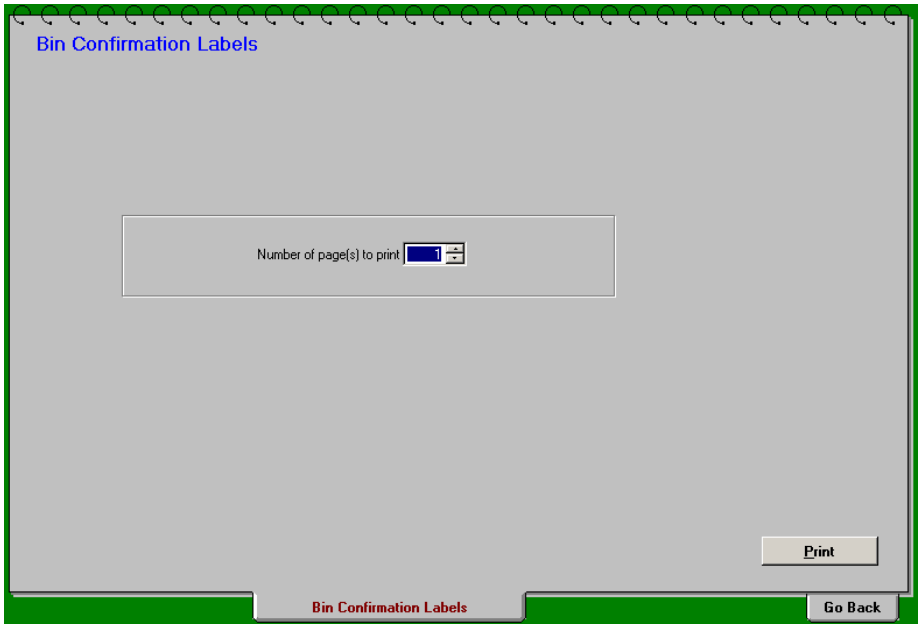

Figure 1-33. Administration Tab, OmniSupplier Admin Type—Print Bin Confirmation Labels

The labels are printed in sequential order. If labels have been printed in the past, numbering for subsequent jobs start where the last print job left off. The OmniCenter retains this information, to prevent duplication of bin bar codes.

Note: ID numbers are generated sequentially, starting from 1 and ending at 2,147,483,647. If the maximum number is reached the sequence starts again at 1.

Once printed, labels are placed in the desired bins. Bin association is performed via the Color Touch software and scanner. See sample label below.

Figure 1-34. Sample bin confirmation label

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Restock Configuration Setup A Restock Configuration Setup screen has been added to the Administration tab, Setup Administration type. Restock Configuration Setup contains three screens:

- Restock Printing
- Report Setup
- Miscellaneous Restock Settings

Note: The detailed explanation of the Restock Configuration Setup provided here is only for fields with a new or revised function. For more information on restock functions, see the *Omnicell 9000 Technical Release Guide* (P/N 60-0077, Rev. C or higher) and *Omnicell 9000 Color Touch 5.6 User Guide* (P/N 60-0095).

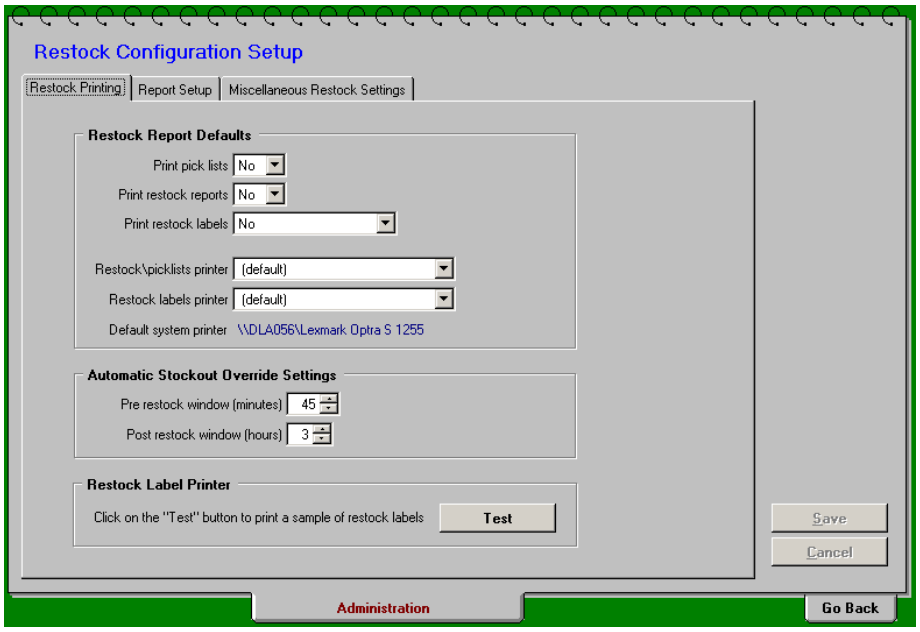

Figure 1-35. Administration Tab, Setup Admin Type—Restock Configuration Setup Screens

Restock Printing Screen The Restock Printing screen (see Figure 1-35) allows the user to control the following settings:

- Restock Report Defaults
  - Print pick lists (Yes/No)
  - Print restock reports (Yes/No)
  - Print restock labels (Yes/No/SafetyStock Items Only)
  - Restock/picklists printer
  - Restock labels printer
  - Default system printer (read-only field)
- Automatic Stockout Override Settings
  - Pre-restock window, in minutes (0-720)
  - Post-restock window, in hours (0-24)
- Restock Label Printer (Test button)
  - For user to test the SafetyStock label printer

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The Restock Report Defaults section has been added to allow users to specify whether or not to print pick lists, restock reports and/or restock labels. The Print restock labels option determines if restock labels will be printed, by default, when generating restocks, and if so, whether to print labels only for SafetyStock items. If this option is set to **Yes** or **SafetyStock Items Only**, restock labels are generated, by default, at the designated SATO label printer. If **SafetyStock Items Only** is selected, labels are only printed for items set to **Confirm Restock: ...scan required** in the Items database.

The Automatic Stockout Override Settings allow the user to specify the time periods, prior to normal restock generation and fulfillment, that Automatic Stockout restock generation should not occur. The Pre-restock window setting determines the amount of time prior to normal restock generation that Automatic Restock triggers will be ignored. The Post-restock window setting determines the amount of time after normal restock generation that Automatic Restock triggers will be ignored.

The Restock/picklists printer and Restock labels printer fields allow the user to specify the default printer for restock reports and picklists, and the default printer for restock labels. The Default system printer field is read-only; it displays the designated OmniCenter/system printer.

Report Setup Screen The Report Setup screen allows the user to control the following settings:

- Restock Report (sort order/report type defaults)
  - Restock report

    Standard option provides options by item with on-order info or Standard (by bin)

    Custom option selects a custom report
  - Order restock list

    By Omni Bin/Stock Bin/item ID/Item Name
- Pick List (sort order/report type defaults)
  - Pick list report

    Standard option includes Standard (by Source); By Omni; By source w/costs; By source w/ item bar codes; By source w/par

    Custom option selects a custom report
  - Order pick list

    By Bin Location; Item ID; Item Name
  - Show quantity

    By Unit of Stocking; Unit of Issue
  - Split

    By Omni; Consolidated (read-only field controlled by Pick List Report setting)

Miscellaneous Restock Settings Screen The Miscellaneous Restock Settings screen allows the user to control the following settings:

- Generate restocks (Yes/No) (Yes if selected; No if de-selected)
- Days to accumulate restock quantities, in days (0-365)
- Restock critically low items to (Par/Reorder Point)

Restock Tab Modifications

The Restock tab now features separate screens for restock by route, by omni (cabinet), and by item (Selective Restock), as well as for reprints. It also has numerous other user interface enhancements.

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Note: Detailed explanation is provided here only for fields related to new features (i.e. SafetyStock, Automatic Stockout, etc.). For more information on restock functions, see the *Omnicell 9000 Technical Release Guide* (P/N 60-0077, Rev. C or higher) and *Omnicell 9000 Color Touch 5.6 User Guide* (P/N 60-0095).

The feature enhancements specifically related to and/or useful for SafetyStock include:

- The addition of a Restock By Item option (Selective Restock).
- The addition of a Print Labels option, including the ability to limit printing to SafetyStock items. The Labels option is used to print restock labels to the SATO printer.
- The Reprint option provides the ability to reprint restocks for selected items (see "Reprint Restock" on page 1-29).

General User Interface Changes The restock screens now function like other OmniCenter screens. Following are some of the general user interface changes:

Note: A detailed explanation of Restock Configuration Setup is provided here only for fields with new or revised functionality. For more information on restock functions, see the *Omnicell 9000 Technical Release Guide* (P/N 60-0077, Rev. C or higher) and *Omnicell 9000 Color Touch 5.6 User Guide* (P/N 60-0095).

- Sort lists in ascending or descending order by clicking the header columns (marked with an up/down arrow).
- **All** and **Clear All** functions help manage lists.
- User selected items are retained when users leave, then return to the page. Once the restock is generated, the selections are cleared automatically.

Additionally, each Restock option page includes the ability to select/de-select Print options. Although the default settings for these fields are controlled by the Restock Configuration Settings (Administration tab, Setup Admin Type), the user can choose whether or not to print picklists, restock reports and/or labels as needed.

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Restock By Route

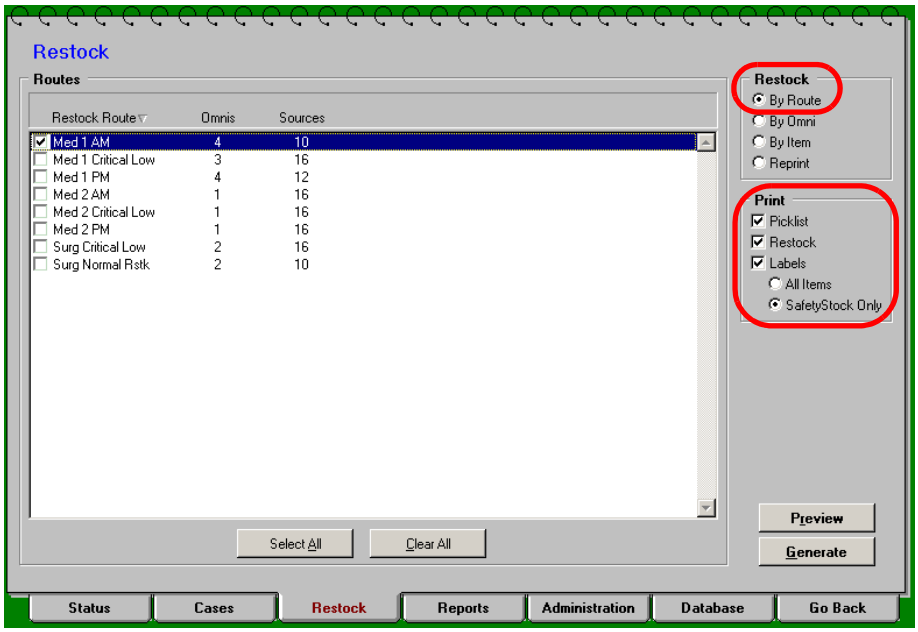

Figure 1-36. Restock Tab—Restock By Route (default view)

Restock By Omni

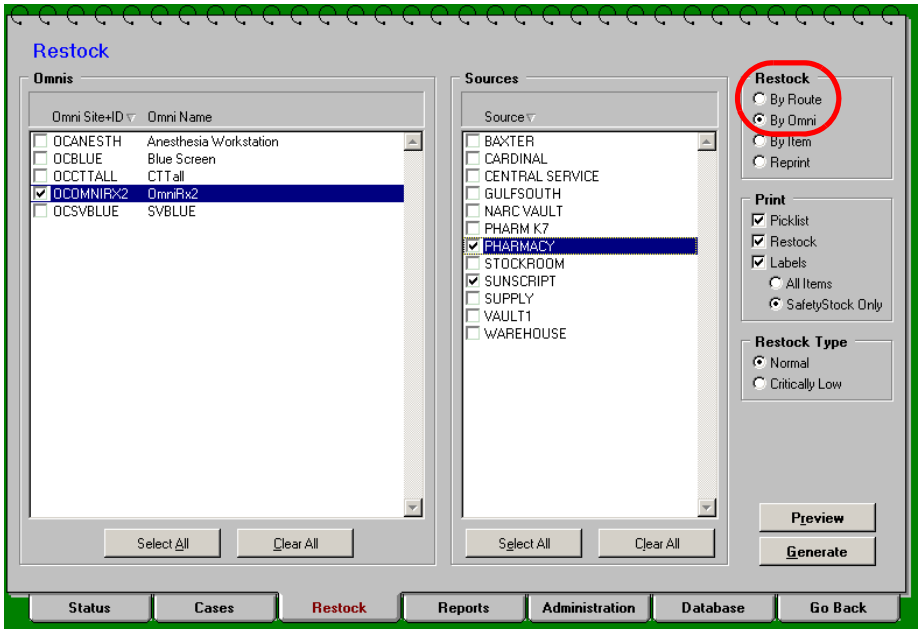

Figure 1-37. Restock Tab—Restock By Omni

Restock By Item (Selective Restock) The Restock **By Item** option, or selective restock, allows users to generate a restock at the OmniCenter for specific items, apart from the normal restock process. To do so, the user selects the **Restock** tab, **Restock By Item** option, then clicks **Add** to search for and add individual items to the list.

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Note: A detailed explanation of Restock Configuration Setup is provided here only for fields related to new or revised functionality. For more information on restock functions, see the *Omnicell 9000 Technical Release Guide* (P/N 60-0077, Rev. C or higher) and *Omnicell 9000 Color Touch 5.6 User Guide* (P/N 60-0095).

The user can also designate the Item Source as **Reorder** or **Critical Low**.

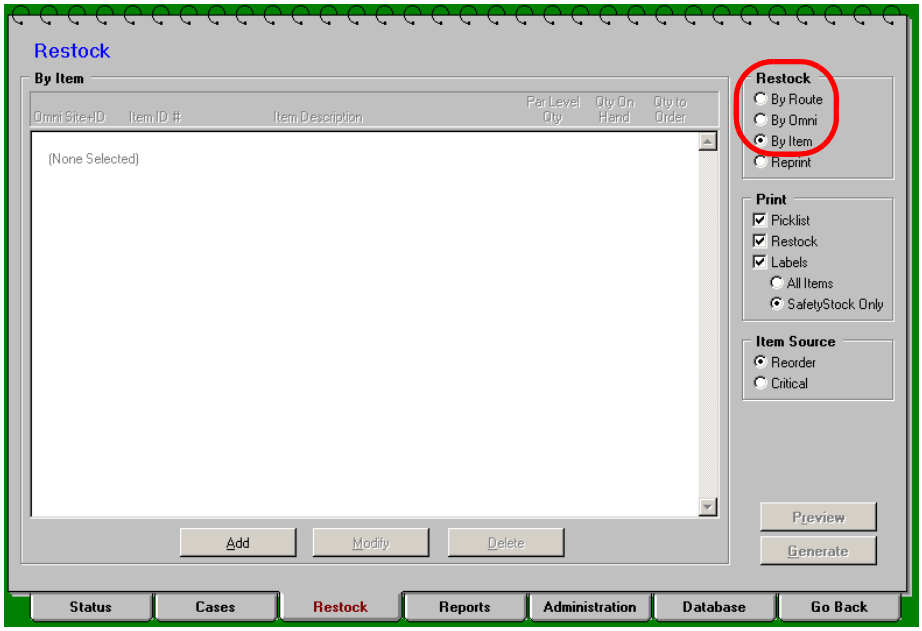

Figure 1-38. Restock Tab, Restock By Item (Selective Restock)—Default View

When an item is added to the list (Figure 1-39), the Qty to Order field can be modified, as needed, by double-clicking the existing field entry and typing in the new value (Figure 1-40).

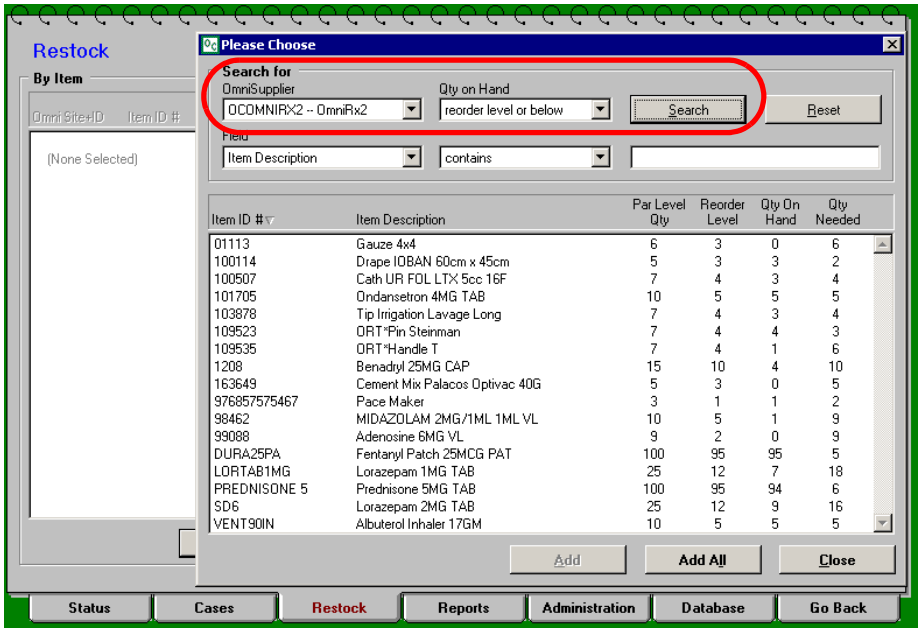
Restock
By Item
Please Choose
Search for
OmniSupplier
OCOMNIRX2 -- OmniRx2
Qty on Hand
reorder level or below
Search
Reset
Field
Item Description
contains
Item ID #
Item Description
Par Level Qty
Reorder Level
Qty On Hand
Qty Needed
01113 Gauze 4x4 6 3 0 6
100114 Drape IOBAN 60cm x 45cm 5 3 3 2
100507 Cath UR FOL LTX 5cc 16F 7 4 3 4
101705 Ondansetron 4MG TAB 10 5 5 5
103878 Tip Irrigation Lavage Long 7 4 3 4
109523 ORT*Pin Steinman 7 4 4 3
109535 ORT*Handle T 7 4 1 6
1208 Benadryl 25MG CAP 15 10 4 10
163649 Cement Mix Palacos Optivac 40G 5 3 0 5
976857575467 Pace Maker 3 1 1 2
98462 MIDAZOLAM 2MG/1ML 1ML VL 10 5 1 9
99088 Adenosine 6MG VL 9 2 0 9
DURA25PA Fentanyl Patch 25MCG PAT 100 95 95 5
LORTAB1MG Lorazepam 1MG TAB 25 12 7 18
PREDNISONE 5 Prednisone 5MG TAB 100 95 94 6
SD6 Lorazepam 2MG TAB 25 12 9 16
VENT90IN Albuterol Inhaler 17GM 10 5 5 5
Add
Add All
Close
Status
Cases
Restock
Reports
Administration
Database
Go Back

Figure 1-39. Restock Tab, Restock By Item (Selective Restock)—Add Item (Search) Function

Note: Quantity on Order (accumulated restocking) is not shown or included in the calculations for Selective Restocks.

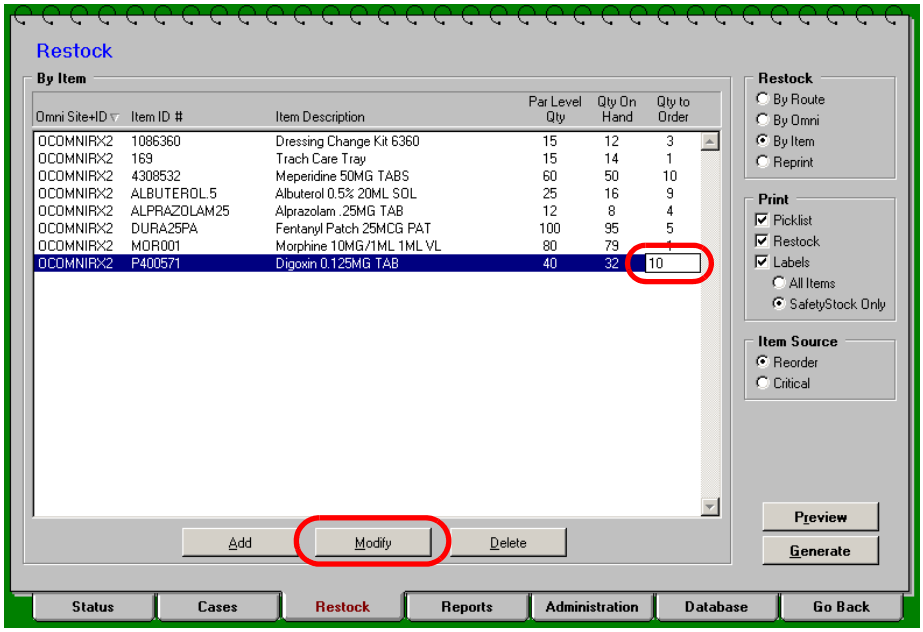

Figure 1-40. Restock Tab, Restock 'By Item' (Selective Restock)—Modifying the Qty to Order Field

When finished, as with the other restock options, the user can choose to print picklists, a restock report and/or restock labels. Once the Selective Restock is generated, it is sent to the applicable cabinet(s) and is accessible via the Normal Restock function.

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Reprint Restock The **Reprint** option has been enhanced to allow the selection of restock IDs across multiple routes, during the same reprint transaction.

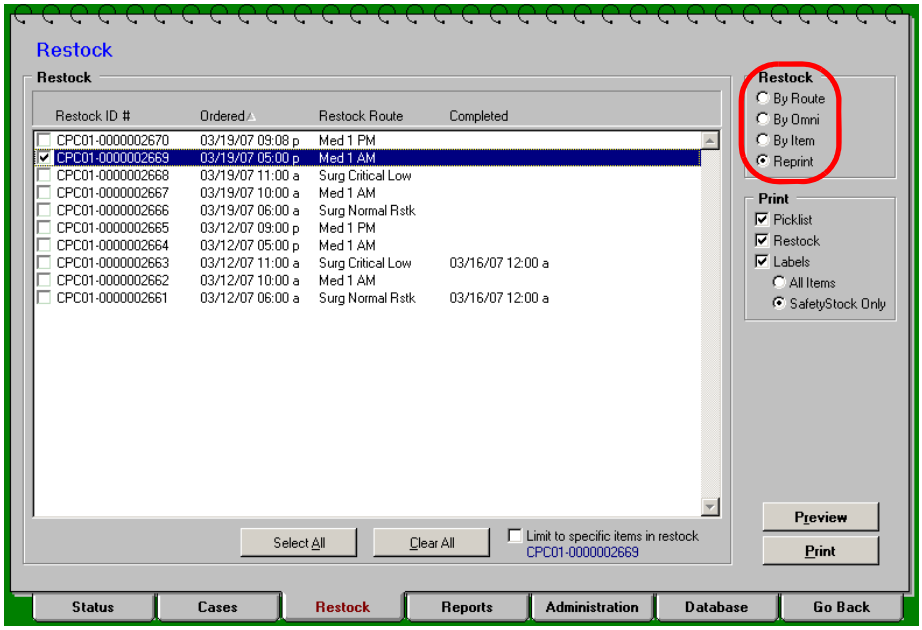

Figure 1-41. Restock Tab—Restock Reprint Option

If the user selects a single Restock ID, the **Limit to specific items in restock** option becomes available. When selected, this option allows users to select individual items for which they can reprint a picklist, restock report, or labels. This is particularly useful for SafetyStock items, as the user can reprint individual restock labels as needed.

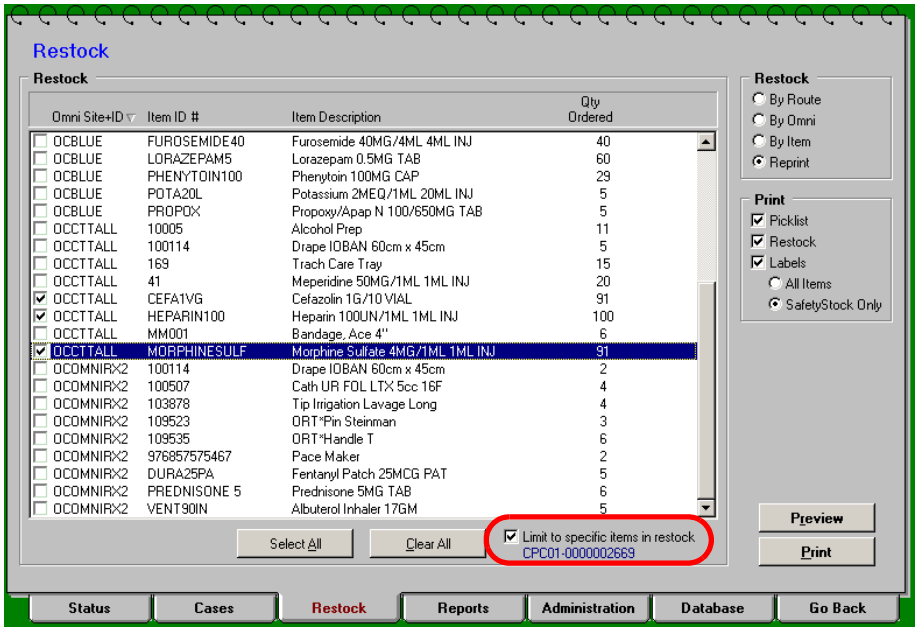

Figure 1-42. Restock Tab, Restock Reprint Option—Limit to Specific Items in Restock

Database Tab Modifications

Changes have been made to various screens and tables in the OmniCenter database to support SafetyStock and the additional restock enhancements. These include visible changes to the Items table and OmniSuppliers table.

Items Table Modifications This section covers changes specific to the Items record, Restock section. Another facet of bar code support involves associating the item with one or more bar codes (Items record, Bar Code section). This functionality is detailed in the Bar Code Support for Medications and Supplies chapter of the *Omnicell 9000 Technical Release Guide* (PN 60-0077, Rev. C or higher). Additionally, the defaulting rules for Critical Source and Critical Bin Location have changed.

Note: The facility can also require bin bar code confirmation at the time of restock. However, this is set up at the cabinet, and is based on the item-bin association. See the "Color Touch Functionality" on page 1-39 for details.

Restock and/or Item Bar Code Confirmation A Confirm Restock field has been added to the Items record, Restock section. For each item, facilities have the option to set this field as follows:

- No scan required (default setting)
- Item bar code scan required
- Item or restock bar code scan required

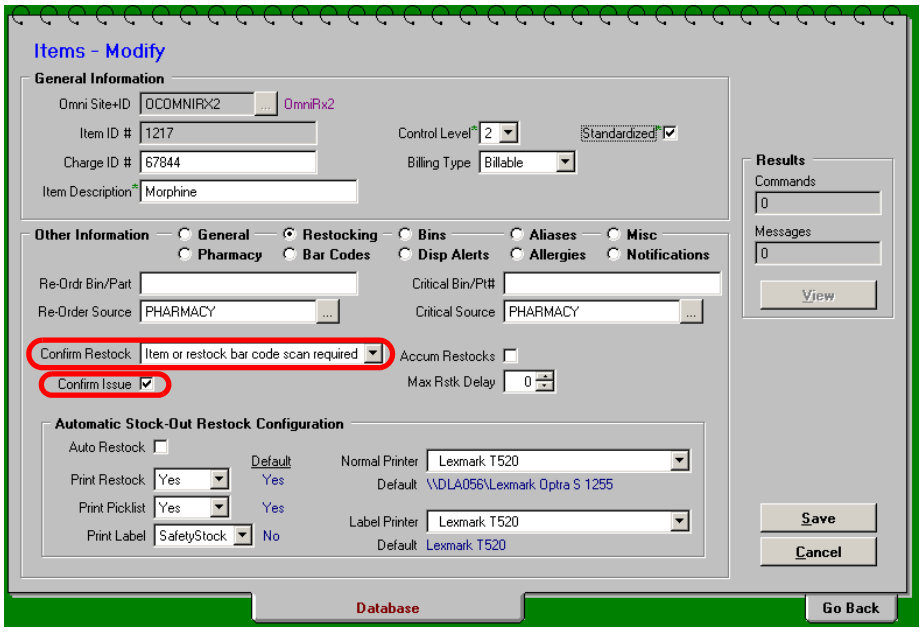

Figure 1-43. Database Tab, Restocking Section—bar code Confirmation Fields for Restock and Issue

If Confirm Restock is set to **No Scan Required**, the item is not treated as a SafetyStock item for restock purposes.

Note: If the Critical Source field is blank when an item is added or modified, it defaults to the **Reorder Source**.

If the Critical Bin/Part# field is blank when an item is added or modified (or during upgrade), it defaults to the **Reorder Bin/Part#**.

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If set to **Item bar code scan required**, the item must be scanned at time of restock, and only the item bar code will be accepted as a valid scan (the item bar code is typically pre-printed on or adhered to the individual package).

If set to **Item or restock bar code scan required**, the item must be scanned at time of restock, and either the item bar code or the corresponding SafetyStock or WorkflowRx restock label is acceptable as a valid scan. In this case, it is recommended that the item bar code be scanned whenever possible, as this provides the highest level of error prevention.

The facility can also require bin bar code confirmation at the time of restock. However, this is set up at the cabinet, and is based on the item-bin association. See the "Color Touch Functionality" on page 1-39 for details.

Note: This feature can be used independently or in addition to the restock confirmation function. The two are neither mutually exclusive or mutually dependent.

Item Bar Code Issue Confirmation A Confirm Issue field has also been added to the Items record, Restock section. This field allows facilities to require issue confirmation for the item (selected = Yes, scan required; de-selected = No, scan not required). The field is de-selected by default. If it is selected, the user must scan the item bar code when removing the item from the cabinet. This option is especially recommended for high-risk items, such as those that look similar to one another.

Note: Another facet of bar code support involves associating the item with one or more bar codes (Items record, Bar Code section). This functionality is detailed in the Bar Code Support for Medications and Supplies chapter of the *Omnicell 9000 Technical Release Guide* (PN 60-0077 Rev. C, or higher)

Automatic Stock-Out Restock Configuration An Auto Restock field has been added to the Items record, Restock section, along with associated fields in which to verify or override default print settings. The Auto Restock field determines if the item qualifies for **Automatic Stock-out restock generation** (selected = Yes, enable auto-restock for this item; de-selected = No, auto-restock disabled for this item). This field is de-selected by default. If it is selected, restock is automatically generated whenever the item reaches a zero quantity, unless it is within a configured number of minutes before a normal restock or a configured number of hours before a scheduled restock.

Note: The time period to ignore Automatic Stock-out triggers before and after normal restock is configurable. See the "Restock Configuration Setup" on page 1-23 for more information.

If desired, the user can also chose to alter the default print settings for the item when an Automatic Stock-Out restock is generated. This includes whether or not to print restock reports, pick lists, and/or restock labels, and to which printers. The defaults displayed for these fields are determined by the Restock section settings on the associated OmniSupplier record.

Automatic Stock-Out default print settings are determined as follows:

- Item-level defaults match the settings on the associated OmniSupplier record.
- OmniSupplier-level defaults match the settings on the Restock Configurations Setup, Restock Report Defaults screen (**Administration** tab > **Setup**).
- If left unchanged at the Restock Configuration Setup level, restocks will default to the OmniCenter/system printer.

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OmniSuppliers Table Modifications

Automatic Stock-Out Print Settings A Restock section has been added to the OmniSuppliers record, providing users the opportunity to modify Automatic Stock-Out settings for the selected cabinet. At the OmniSupplier level, different print preferences, such as to print or not print labels, can be specified for pharmacy and supply items.

These fields only need to be modified if the default print settings, derived from Restock Configuration Setup (**Administration** tab > **Setup**), are not acceptable.

Automatic Stock-Out default print settings are determined as follows:

- Item-level defaults match the settings on the associated OmniSupplier record.
- OmniSupplier-level defaults match the settings on the Restock Configurations Setup, Restock Report Defaults screen (**Administration** tab > **Setup**).
- If left unchanged at the Restock Configuration Setup level, restocks will default to the OmniCenter/system printer.

Automatic Stock-Outs for all items in the cabinet default to the OmniSupplier settings. However, if the Automatic Stock-Out print settings for an item in the cabinet are changed on the Item record, the OmniSupplier settings are ignored for that item.

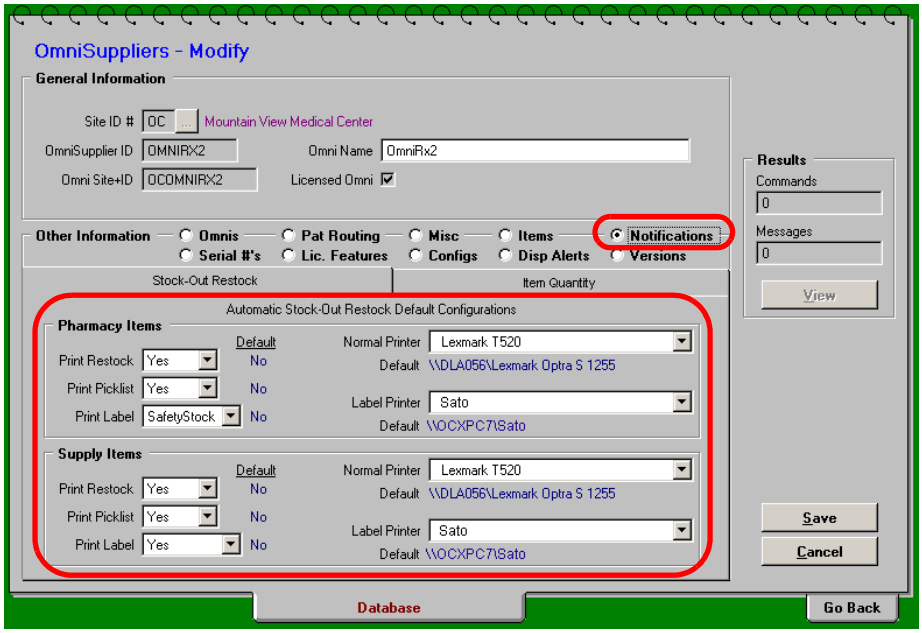

Figure 1-44. Database Tab, Restocking Section—Automatic Stock-Out and Related Fields

Licensed Features Settings SafetyStock is an Omnicell option, and thus requires a valid Option Key in order to be activated. SafetyStock Option Keys are encrypted with the number of licensed cabinets. For example, if the facility purchases the SafetyStock option for 10 cabinets, only 10 cabinets can be SafetyStock enabled at a given time.

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Once a valid Option Key is entered (via **Global Settings**, **LICENSE** Resource Type), the **SafetyStock** field must be enabled on each applicable cabinet record. This is done via the Database tab, OmniSuppliers table. See "Modifying or Verifying OmniSupplier Records" on page 1-56 for implementation steps.

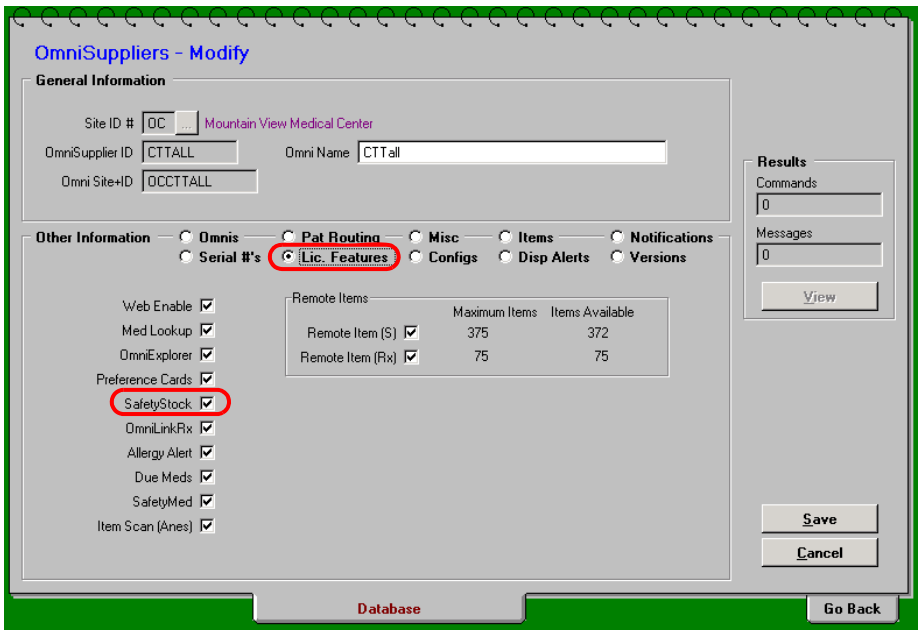

Figure 1-45. Database Tab, OmniSuppliers Table—Licensed Features Subtab

For more information about licensing functionality, refer to Licensed Features in the *Omnicell Licensed Features Technical Guide* (PN 67-3021).

Transactions Table Modifications The Transactions table has been modified to include the following fields:

Note: For other related table changes, such as ItemBins, etc., see the "Color Touch Functionality" section.

Field	Token	Lookup	Description
iscanover	iso	isover	Scan Override

Table 1-2. Xact Table

Field	Token	Lookup	Description
ss_restock	ssr	ssrstk	Confirm Restock
ss_issue	ssi	y/n	Confirm Issue
binconf	bci		Bin Conf ID

Table 1-3. Xitem Table

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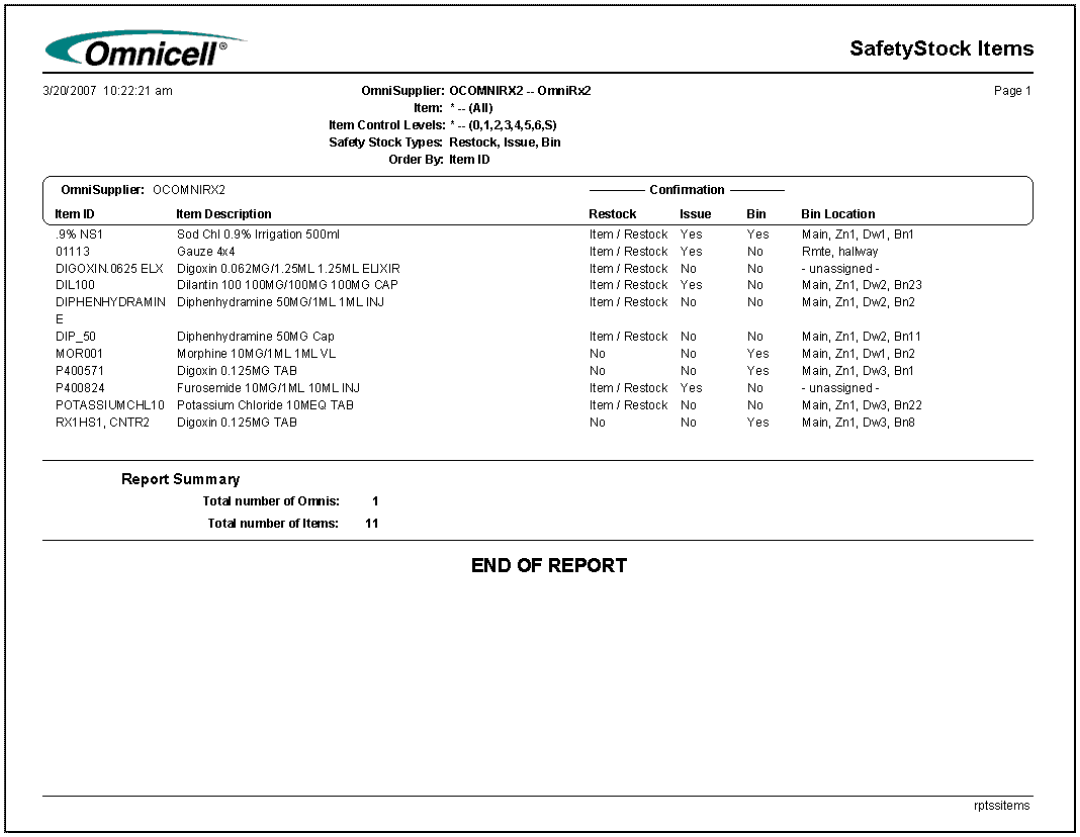
Reports

The following reports have been added or modified to support SafetyStock and related features:

- New Reports
  - *SafetyStock Items* report
  - *SafetyStock Override* report
  - *SafetyStock Quality Assurance* report
- Revised Reports
  - *No Items Need Restocking* report
  - *Restock* and *Picklist* reports
  - *Null Transactions* report

New Reports

SafetyStock Items Report A *SafetyStock Items* report has been added to the Operational reports list, to help facilities manage their SafetyStock items.



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SafetyStock Items

3/20/2007 10:22:21 am — Page 1

OmniSupplier: OCOMNIRX2 -- OmniRx2
Item: * -- (All)
Item Control Levels: * -- (0,1,2,3,4,5,6,S)
Safety Stock Types: Restock, Issue, Bin
Order By: Item ID

OmniSupplier: OCOMNIRX2

Item ID	Item Description	Confirmation: Restock	Issue	Bin	Bin Location
.9% NS1	Sod Chl 0.9% Irrigation 500ml	Item / Restock	Yes	Yes	Main, Zn1, Dw1, Bn1
01113	Gauze 4x4	Item / Restock	Yes	No	Rmte, hallway
DIGOXIN.0625 ELX	Digoxin 0.062MG/1.25ML 1.25ML ELIXIR	Item / Restock	No	No	- unassigned -
DIL100	Dilantin 100 100MG/100MG 100MG CAP	Item / Restock	Yes	No	Main, Zn1, Dw2, Bn23
DIPHENHYDRAMINE	Diphenhydramine 50MG/1ML 1ML INJ	Item / Restock	No	No	Main, Zn1, Dw2, Bn2
DIP_50	Diphenhydramine 50MG Cap	Item / Restock	No	No	Main, Zn1, Dw2, Bn11
MOR001	Morphine 10MG/1ML 1ML VL	No	No	Yes	Main, Zn1, Dw1, Bn2
P400571	Digoxin 0.125MG TAB	No	No	Yes	Main, Zn1, Dw3, Bn1
P400824	Furosemide 10MG/1ML 10ML INJ	Item / Restock	Yes	No	- unassigned -
POTASSIUMCHL10	Potassium Chloride 10MEQ TAB	Item / Restock	No	No	Main, Zn1, Dw3, Bn22
RX1HS1, CNTR2	Digoxin 0.125MG TAB	No	No	Yes	Main, Zn1, Dw3, Bn8

Report Summary
Total number of Omnis: 1
Total number of Items: 11

END OF REPORT

rptssitems

Figure 1-46. Reports Tab, Operational Type—SafetyStock Items

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This report can be grouped by OmniSupplier, then by Item ID (default), Item Name or Bin Location, and can be filtered based on the following criteria:

- Omni Site+ID
- Item ID
- Item Control Levels
- SafetyStock Types

  Restock Confirmation

  Issue Confirmation

  Bin Confirmation

  No Confirmation (de-selected by default)

Note: All bin locations for a multi-bin item will be displayed on the report if at least one of the bins is configured for bin confirmation.

SafetyStock Override Report A *SafetyStock Override Report* has been added to the Operational reports list, to allow for tracking of SafetyStock scan compliance during issue and restock transactions.

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SafetyStock Override Report

3/20/2007 10:17:18 am — Page 1

Date Range: 2/1/2002 12:00:00.00 am - 3/14/2007 11:59:59.99 pm
OmniSupplier: OCOMNIRX2 -- OmniRx2
Item: * -- (All)
Item Control Levels: * -- (0,1,2,3,4,5,6,S)
Scan Override Types: * -- (C,M,O,U,W)
User: * -- (All)
Order By: OmniSupplier

OmniSupplier: OCOMNIRX2 -- OmniRx2

Date/Time	Restock Number	User ID	User Name	Item Description	Item ID	Transfer Type	Bin ID	Scan Override
04/09/04 11:22 AM		**********	Therese Martin	Fentanyl 0.05MG/1ML 1ML	FENTANYL.05	I	33585	W
04/09/04 12:04 PM		**********	Therese Martin	Fentanyl 0.05MG/1ML 1ML	FENTANYL.05	I	33585	O
04/27/04 9:46 AM		**********	Melanie	Fentanyl 0.05MG/1ML 1ML	FENTANYL.05	I	33585	M
05/18/04 3:12 PM		**********	Head Nurse	Fentanyl 0.05MG/1ML 1ML	FENTANYL.05	I	33585	M
07/07/04 4:23 PM		**********	Marilyn	Furosemide 10MG/1ML 10ML INJ	P400824	I	33627	C
07/07/04 4:24 PM		**********	Marilyn	Furosemide 10MG/1ML 10ML INJ	P400824	I	33627	C
07/10/04 11:58 AM		**********	10	Fentanyl 0.05MG/1ML 1ML INJ	FENTANYL.05	I	33585	O
07/10/04 11:59 AM		**********	10	Fentanyl 0.025MG/0.5ML 0.5ML INJ	FENTANYL.025	I	33587	W
08/10/05 2:51 PM		**********	10	Fentanyl 0.025MG/0.5ML 0.5ML INJ	FENTANYL.025	I	33629	O
08/19/05 2:37 PM		**********	Melissa	Fentanyl 0.025MG/0.5ML 0.5ML INJ	FENTANYL.025	I	33629	M
08/23/05 1:53 PM		**********	Melissa	Fentanyl 0.025MG/0.5ML 0.5ML INJ	FENTANYL.025	I	33629	C
08/23/05 3:14 PM		**********	10	Fentanyl 0.025MG/0.5ML 0.5ML INJ	FENTANYL.025	I	33629	M
11/10/05 12:31 PM		**********	San	Gauze 4x4	01113	I	65533	M
11/10/05 6:19 PM		**********	Melissa	Gauze 4x4	01113	I	65533	M

14 Override transactions for OCOMNIRX2 -- OmniRx2
68 Total SafetyStock transactions for OCOMNIRX2 -- OmniRx2
20.59% Override transactions

SafetyStock Override Summary

14 Total override transactions for this report
68 Total SafetyStock transactions for this report
20.59% Total override transactions

END OF REPORT

rptssoverrideo

Figure 1-47. Reports Tab, Operational Type—SafetyStock Override Report

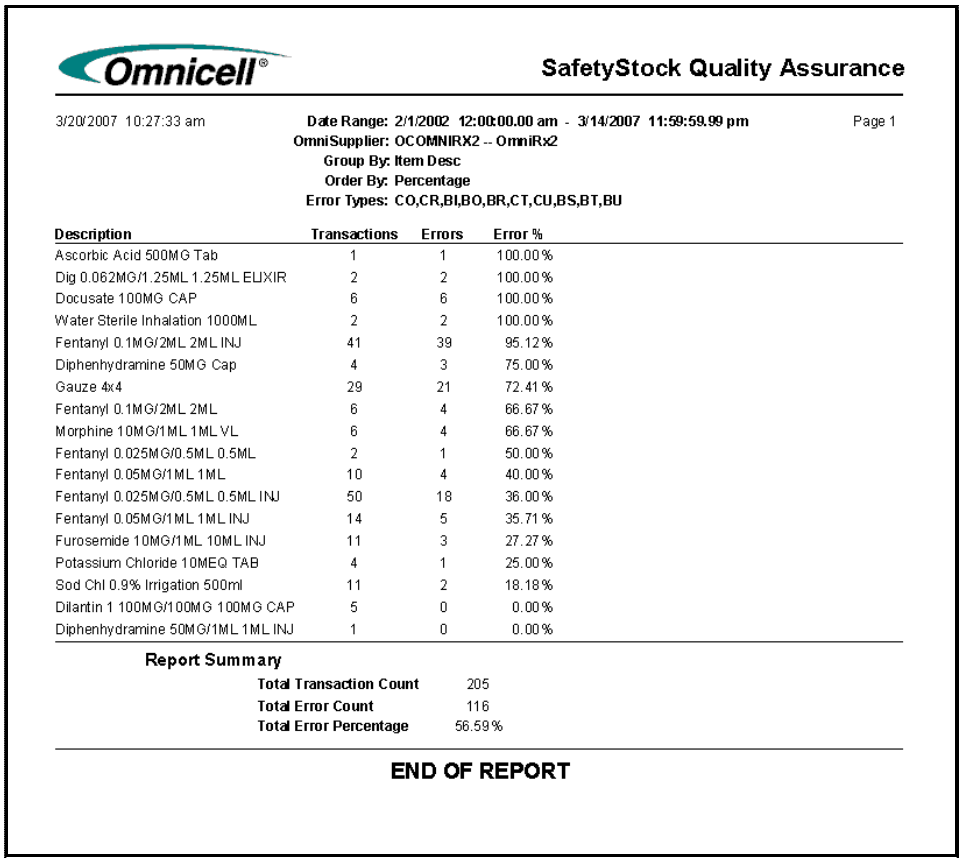
This report can be grouped by OmniSupplier (default), Item ID or User ID, and can be filtered based on the following criteria:

- Date Range
- User ID
- Omni Site+ID
- Item ID
- Control Levels

Scan Override Types (based on the override reason entered by the user at the cabinet; see the Color Touch section for details)

SafetyStock Quality Assurance Report A *SafetyStock Quality Assurance* report has been added to the Operational reports list, to allow users to verify the SafetyStock rate of effectiveness in error prevention.

Note: The purpose of this report is to display the number of errors prevented by SafetyStock. The *Null Transactions* and/or *SafetyStock Override* reports provide specific transaction details.



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SafetyStock Quality Assurance

3/20/2007 10:27:33 am

Date Range: 2/1/2002 12:00:00.00 am - 3/14/2007 11:59:59.99 pm

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OmniSupplier: OCOMNIRX2 -- OmniRx2
Group By: Item Desc
Order By: Percentage
Error Types: CO,CR,BI,BO,BR,CT,CU,BS,BT,BU

Description	Transactions	Errors	Error %
Ascorbic Acid 500MG Tab	1	1	100.00%
Dig 0.062MG/1.25ML 1.25ML ELIXIR	2	2	100.00%
Docusate 100MG CAP	6	6	100.00%
Water Sterile Inhalation 1000ML	2	2	100.00%
Fentanyl 0.1MG/2ML 2ML INJ	41	39	95.12%
Diphenhydramine 50MG Cap	4	3	75.00%
Gauze 4x4	29	21	72.41%
Fentanyl 0.1MG/2ML 2ML	6	4	66.67%
Morphine 10MG/1ML 1ML VL	6	4	66.67%
Fentanyl 0.025MG/0.5ML 0.5ML	2	1	50.00%
Fentanyl 0.05MG/1ML 1ML	10	4	40.00%
Fentanyl 0.025MG/0.5ML 0.5ML INJ	50	18	36.00%
Fentanyl 0.05MG/1ML 1ML INJ	14	5	35.71%
Furosemide 10MG/1ML 10ML INJ	11	3	27.27%
Potassium Chloride 10MEQ TAB	4	1	25.00%
Sod Chl 0.9% Irrigation 500ml	11	2	18.18%
Dilantin 1 100MG/100MG 100MG CAP	5	0	0.00%
Diphenhydramine 50MG/1ML 1ML INJ	1	0	0.00%

Report Summary

Total Transaction Count	205
Total Error Count	116
Total Error Percentage	56.59%

END OF REPORT

Figure 1-48. Reports Tab, Operational Type—SafetyStock Quality Assurance

The *Quality Assurance* report includes information on the following transaction types:

- Null Types: BI, BO, BR, BS, BT, BU, CO, CR, CT, or CU (see "Null Transactions Report" on page 1-37)

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- Issues of Issue Confirmation items
- Returns of Restock or Bin Confirmation items
- Restocks of Restock or Bin Confirmation items
- Supplemental Restocks of Restock or Bin Confirmation items

This report can be grouped by OmniSupplier, Item Description or User Name. It can be ordered by Group or Percentage, and can be filtered based on the following criteria:

- Date Range
- OmniSite+ID
- Error Types:
  - Wrong Item Scanned (Null Types: BS, BT or BU)
  - Wrong Bin Scanned (Null Types: CT or CU)
  - No Item Scanned (Null Types: BI, BO or BR)
  - No Bin Scanned (Null Types: CO or CR)

Revised Reports

No Items Need Restocking Report and Labels The *No Items Need Restocking* report now includes a label report version, formatted to print on restock labels (SATO printer). The "No Items..." label displays the restock route, restock type, current date/time, and the number of cabinets in the route. This report is generated whenever a Restock label report would have been printed, had there been items to restock.

In addition, the existing *No Items Need Restocking* report is now generated whenever a Restock or Picklist report would have printed, had there been items to restock.

Restock and Picklist Report Modifications The Restock and Picklist reports have been modified to note which items are SafetyStock Restock Confirmation items. Such items are marked with a "c" in the far right-hand column.

Null Transactions Report The *Null Transactions* report has been modified to include the new SafetyStock-related Null Types. (See Figure 1-49.) The new Null Types are as follows:

- BI—failed to scan item bar code during issue
- BO—failed to scan item or Restock Label Bar Code during restock
- BR—failed to scan item bar code during return
- BS—wrong item bar code scanned during issue
- BT—wrong item or restock label bar code scanned during restock
- BU—wrong item bar code scanned during return
- CO—failed to scan Bin Confirmation Label Bar Code during restock
- CR—failed to scan bin confirmation bar code during return
- CT—wrong bin confirmation label bar code scanned during restock
- CU—wrong bin confirmation label bar code scanned during return

Additional filter options have also been added allowing the report to be filtered by the following criteria:

- Date Range

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- OmniSite+ID
- Item ID (new)
- User ID
- Null Types (new; includes selection screen)

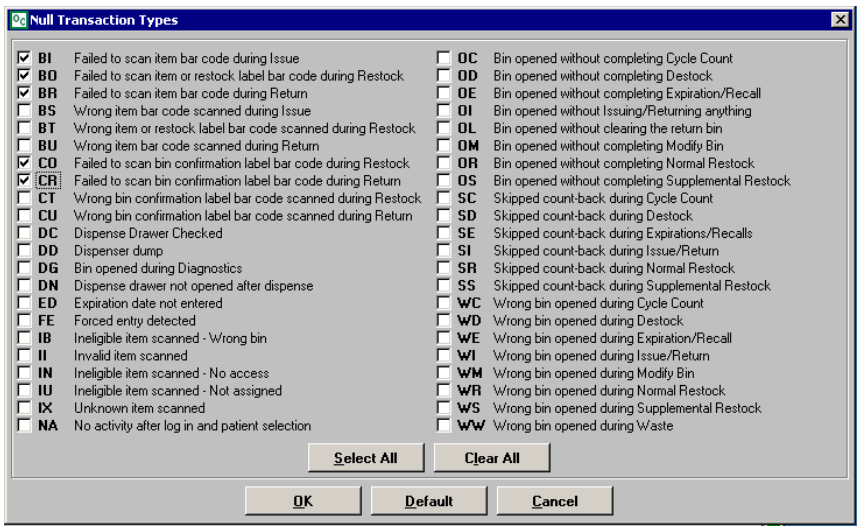
Null Transaction Types
BI Failed to scan item bar code during Issue
BO Failed to scan item or restock label bar code during Restock
BR Failed to scan item bar code during Return
BS Wrong item bar code scanned during Issue
BT Wrong item or restock label bar code scanned during Restock
BU Wrong item bar code scanned during Return
CO Failed to scan bin confirmation label bar code during Restock
CR Failed to scan bin confirmation label bar code during Return
CT Wrong bin confirmation label bar code scanned during Restock
CU Wrong bin confirmation label bar code scanned during Return
DC Dispense Drawer Checked
DD Dispenser dump
DG Bin opened during Diagnostics
DN Dispense drawer not opened after dispense
ED Expiration date not entered
FE Forced entry detected
IB Ineligible item scanned - Wrong bin
II Invalid item scanned
IN Ineligible item scanned - No access
IU Ineligible item scanned - Not assigned
IX Unknown item scanned
NA No activity after log in and patient selection
OC Bin opened without completing Cycle Count
OD Bin opened without completing Destock
OE Bin opened without completing Expiration/Recall
OI Bin opened without Issuing/Returning anything
OL Bin opened without clearing the return bin
OM Bin opened without completing Modify Bin
OR Bin opened without completing Normal Restock
OS Bin opened without completing Supplemental Restock
SC Skipped count-back during Cycle Count
SD Skipped count-back during Destock
SE Skipped count-back during Expirations/Recalls
SI Skipped count-back during Issue/Return
SR Skipped count-back during Normal Restock
SS Skipped count-back during Supplemental Restock
WC Wrong bin opened during Cycle Count
WD Wrong bin opened during Destock
WE Wrong bin opened during Expiration/Recall
WI Wrong bin opened during Issue/Return
WM Wrong bin opened during Modify Bin
WR Wrong bin opened during Normal Restock
WS Wrong bin opened during Supplemental Restock
WW Wrong bin opened during Waste
Select All
Clear All
OK
Default
Cancel

Figure 1-49. Reports Tab, Operational Type, Null Transactions, Null Transaction Types—Filter Select Screen

WorkflowRx Support

SafetyStock and related features also support the integration of WorkflowRx into the restock process. This includes the communication of restock information and Omnicell cabinet inventory information.

The following is a sample use-case, demonstrating the process flow between the OmniCenter, WorkflowRx and Omnicell cabinets during a restock:

1. A restock is generated.
2. All restock information is broadcast to WorkflowRx at the Item level.
3. All restock information is broadcast to OmniSuppliers at the Bin level.
4. The user picks items at WorkflowRx and modifies quantities as necessary.
5. WorkflowRx assigns unique WorkflowRx Transaction IDs at the Item level of the restock.
6. WorkflowRx broadcasts updated restock information to the OmniCenter, at the Item level, complete with the WorkflowRx Transaction ID and any changes in order quantity.

Note: WorkflowRx Transaction IDs are not communicated to the cabinet. They are stored in the Restock table for communication purposes between the OmniCenter and WorkflowRx.

7. OmniCenter updates the restock table as needed, distributing item-level quantity changes among the relevant bins such that the resulting number of bins restocked is minimized. Any records with quantity changes are broadcast to the affected OmniSuppliers at the bin level.
8. The user restocks each OmniSupplier on the route.

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9. The cabinet sends Restock Transaction (XA-S) and Restock Complete (RC) commands at the bin level to the OmniCenter. If/when the restock is completed, the Restock End (RC *END*) record is sent as well.
10. The OmniCenter, as it processes Restock Complete (RC) commands, passes on an aggregate RI (Restock Information) to WorkflowRx, complete with the total quantity restocked for the item and the associated WorkflowRx Transaction ID.

Restock Information Communicated to WorkflowRx The following information is sent in an RI or RA command (Restock Add) whenever restock information is broadcast to WorkflowRx:

Field	Token	Description
rest_num	pon	Restock Number (ID)
rest_orig	ro	Restock Origin
rest_route	rrt	Restock Route
omni_stid	osi	Omni Site + ID
rest_type	rty	Restock Type
item_id	item	Item ID
item_name	ina	Item Name
rx_suffix	rs	Rx Suffix (Pharmacy suffix concatenation)
qty_parlvl	qpl	Par (Item total at time of order)
qty_alarm	qal	Critically Low (Item total at time of order)
qty_onhand	qoh	Qty On Hand (Item total at time of order)
qty_accum	qac	Qty On Order (Item total at time of order)
qty_order	qor	Qty Ordered (Item total at time of order)
qty_recd	qrc	Qty Received (Item total so far)
dati_ordr	dor	Order Date/Time
rest_dati	rdt	Restocked Date/Time
rest_user	rus	Restocked By

Table 1-4. Restock Information Communicated to WorkflowRx

Color Touch Functionality

In order to support SafetyStock and related features at the cabinet, modifications have been made to the database, as well as to a number of Color Touch functions, including:

- Normal Restock,
- Supplemental Restock
- Issue
- Return
- Modify Bin

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Bar Code Types Supported

Some Color Touch functions rely on valid bar code scans. The following list of bar code types are what the SafetyStock scanner supports:

- UPC-A
- UPC-E
- EAN-8
- EAN-13
- Code 128
- UCC/EAN-128
- ISBT 128 (non-concatenated)
- Code 39 (2-55 characters)
- Interleaved 2 of 5 (ITF)
- RSS 14
- RSS Limited
- RSS Expanded
- RSS Stacked (Product ID portion only)
- RSS Expanded Stacked
- RSS Stacked Omni-directional
- RSS 14 Truncated

Database

Item Scan Code Table

A Scan Code table has been added to the Color Touch database to store information about item scan codes. Each item ID can have multiple scan codes associated with it, in order to support any number of bar codes representing the same item (e.g. bar codes from several different manufacturers of a like item).

Field Name	Token	Display Name	Description
is_key	isk	N/A	Table key
item_id	item	Item ID #	Item ID
Iscan	isc	Item Bar Code	Item scan code
Note	nt	Note	Scan code description entered by user
add_id	adi	Add ID	User ID of user who first added this record
add_name	adn	Add Name	User Name of person who first added this record
add_dati	add	Add Dt/Tm	Date record first added
xact_dati	xdt	Last Trans Dt/Tm	Last date a transaction was generated using this scan code
lu_dati	lud	Last Updated DtTm	Date/time of last update
lu_from	luf	Last Updated By	User who performed last update

Table 1-5. Item Scan Code Table

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Transactions Table

The following fields have been added to the Transactions table:

Field Name	Token Display	Name	Description
iscan	isc	Item Bar Code	Item scan code
iscantype	ist	Item Scan Type	Type of bar code scanned —see below
iscanover	iso	Item Scan Override	Was required scan was overridden, and if so, why—see below

Table 1-6. Transactions Table

Item Scan Types Possible scan types are:

- O—OmniScanner label bar code scan (with a "|" prefix). Not used for this feature.
- K—prepack label bar code scan (with a "/" prefix).
- P—Product Label Bar Code scan (with no prefix).
- R—Restock label bar code scan (with "." prefix).
- N—None.
- B—Bin confirmation label bar code scan (with "~" prefix).

Item Scan Override Types Possible scan override types are:

- N—No override.
- M—No bar code on item.
- C—Cannot read item bar code.
- W—Item bar code does not match item selected for restock or issue.
- U—Item bar code is readable, but not associated with an item.
- O—Other, document with supervisor.

Items Table

The following fields have been added to the Items table (set and stored at the OmniCenter):

Field Name	Token	Display Name	Description
ss_restock	ssr	SafetyStock Support	Does item require restock confirmation/type ■ N—Not enabled ■ I—Item bar code required ■ R—Restock bar code label or item bar code label required
ss_issue	ssi	Issue confirmation Support	Does item require issue confirmation, Y/N
ar_item	arit	Auto Restock	Automatic Stock-Out enabled for item, Y/N
ar_pick	arp	Picklist	Print picklist for Automatic Stock-out, Y/N
ar_rest	arr	Restock	Print restock report for Automatic Stock-out, Y/N
ar_bar	arb	Bar Code	Print restock labels for Automatic Stock-out, Y/N
ar_pnorm	arpn	Normal Printer	Default restock report/picklist printer
ar_pbar	arpb	Normal Printer	Default label printer

Table 1-7. Items Table

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ItemBins Table The following field has been added to the ItemBins table:

Field Name	Token	Display Name	Description
Binconf	bci	Bin Confirmation ID	The unique bar code associated with the bin.

Table 1-8. ItemBins Table

Omnis Table The following field has been added to the Omnis table:

Field Name	Token	Display Name	Description
ss_lic	ssl	SafetyStock License	Is a valid SafetyStock Option Key on record at the OmniCenter, Y/N

Table 1-9. Omnis Table

Null Transaction Types The following new Null Types have been added to support SafetyStock:

- BI—failed to scan item bar code during issue
- BO—failed to scan item or restock label bar code during restock
- BR—failed to scan item bar code during return
- BS—wrong item bar code scanned during issue
- BT—wrong item or restock label bar code scanned during restock
- BU—wrong item bar code scanned during return
- CO—failed to scan bin confirmation label bar code during restock
- CR—failed to scan bin confirmation bar code during return
- CT—wrong bin confirmation label bar code scanned during restock
- CU—wrong bin confirmation label bar code scanned during return

Error Messages

If an incorrect item and/or incorrect bar code is scanned, an applicable error message is displayed and a null transaction is sent. (Wrong item and unknown item scans generate null transactions; null includes the bar code scanned and scan type). Possible error messages include:

- **Wrong Item Scanned**
  - Message is displayed and Null Type is sent: BS - Wrong item bar code scanned during issue.
  - Message is displayed and Null Type is sent: BT - Wrong item or restock label bar code scanned during Restock.
  - Message is displayed and Null Type is sent: BU - Wrong item bar code scanned during return.
- **Unknown Item/Bar Code Scanned**
  - Type is sent: BS - Wrong item bar code scanned during issue.
  - Type is sent: BT - Wrong item or restock label bar code scanned during restock.
  - Type is sent: BU - Wrong item bar code scanned during return.

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- **Invalid Bar Code Scanned**—If the user scans a bar code that is not valid for the current function, an applicable message is displayed, such as:
  - Bin bar code not allowed
  - Prepack bar code not allowed
  - Product bar code not allowed
  - Restock bar code not allowed
  - WorkflowRx bin bar code not allowed
  - WorkflowRx Transaction ID Bar Code not allowed
  - OmniScanner label bar code not allowed
- **Wrong Bin Scanned**—Type is sent: CU - Wrong bin confirmation bar code scanned during return.
- **Wrong Bin Scanned-Restock**—Message is displayed and Null Type is sent: CT - Wrong bin confirmation label scanned during Restock.
- **Wrong Bin Scanned-Return**—Type is sent: BU - Wrong item bar code scanned during return.

Restock Functions

The Normal Restock process has been modified to support SafetyStock and related features. Changes include:

- Inclusion of Selective Restocks in the Normal Restock list (Restock By Item, generated at the OmniCenter).

Note: Restock selection behavior has not changed. Selective Restocks generated at the OmniCenter (Restock By Item) are sent to the cabinet as a Normal Restock.

The Inventory Time-out configuration option also applies to bar code restock functions. If the system times out, it is treated as a skip and the appropriate null transaction is sent.

If the user exits the cabinet during a scan-required function, it is treated as a skip and the appropriate null transaction is sent.

- Bar code scan support for restock confirmation and bin confirmation.
- OmniScanner "Accept all Remote Items" support.

Normal Restock

As discussed previously, restock scan requirements are set at the OmniCenter, at the item level. If Confirm Restock is set to **No Scan Required**, the item is not treated as a SafetyStock item for restock purposes.

Item Bar Code Scan Required If set to **Item Bar Code Scan Required**, the item must be scanned at time of restock, and only the item bar code will be accepted as a valid scan (the item bar code is typically pre-printed on or adhered to the individual package).

After selecting the item to restock, the user is prompted to scan the item bar code, and an audible tone sounds. If anything other than a valid item bar code is scanned, a message is displayed and an audible error tone sounds. (See "Error Messages" on page 1-42.)

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The item bar code scan is required only once per location. If bin confirmation is enabled, the user is prompted to scan the bin bar code, following the item bar code scan. (See "Associating Bin Bar Codes" on page 1-50.)

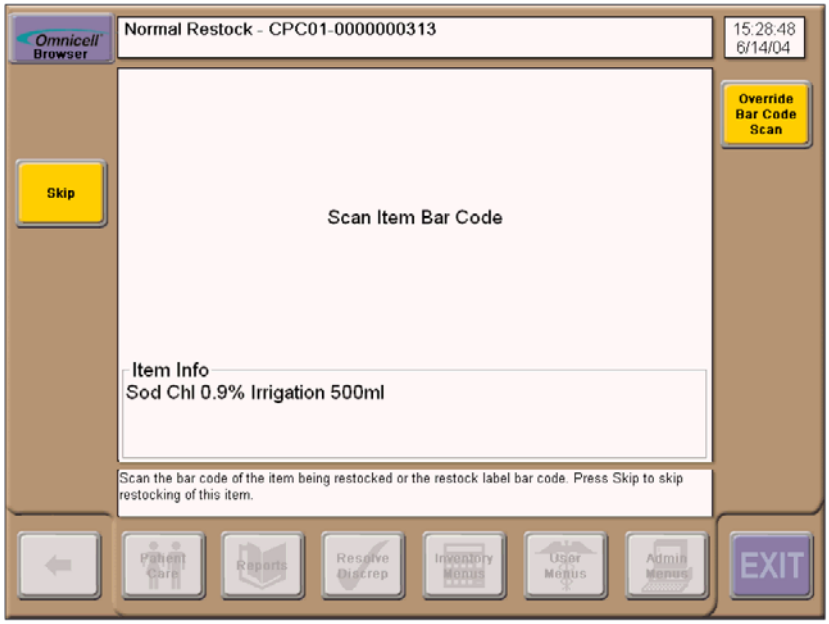

Figure 1-50. Normal Restock—Scan Item Bar Code Screen

If unable to scan the item bar code, the user can override the bar code scan. In this event, the user either scans the restock label, then presses **Override Bar Code Scan**, or presses **Override Bar Code Scan**, then scans the restock label at the prompt.

Note: If the user scans a valid item bar code when prompted to scan the restock bar code during override, the override is cancelled and the transaction proceeds as normal.

Once a valid restock bar code has been scanned, the user is prompted to select one of the following override reasons:

- No bar code
- Unreadable bar code
- Wrong item bar code
- Unknown item bar code
- Other, document with supervisor

The user can also chose to skip the item, per usual functionality. In this event, a null transaction is sent (Null Type: BO—Failed to scan item or restock label bar code during restock).

Item or Restock Bar Code Scan Required

If set to **Item or Restock bar code Scan Required**, the item must be scanned at time of restock, and either the item bar code or the corresponding SafetyStock or WorkflowRx restock label is acceptable as a valid scan. In this case, it is recommended that the item bar code be scanned whenever possible, as this provides the highest level of error prevention.

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After selecting the item to restock, the user is prompted to scan the item or restock bar code, and an audible tone sounds. If anything other than a valid item or restock bar code is scanned, a message displays and an audible error tone sounds. (See "Error Messages" on page 1-42.)

The item or restock bar code scan is required only once per location. If bin confirmation is enabled, the user is prompted to scan the bin bar code, following the item or restock bar code scan. See the Bin Bar Code section of "Modify Bin" on page 1-50.

The override option is not available for Item or **Restock bar code Scan Required** items. However, the user can chose to skip the item, per usual functionality. In this event, a null transaction is sent (Null Type: BO—Failed to scan item or restock label bar code during restock).

OmniScanner Remote Items If OmniScanner support is enabled, and a scan-required remote item is in the selected restock list, the user can press **Accept All Remote Items** to ignore the items; the items remain on the restock list. (See Figure 1-51 and Figure 1-52.)

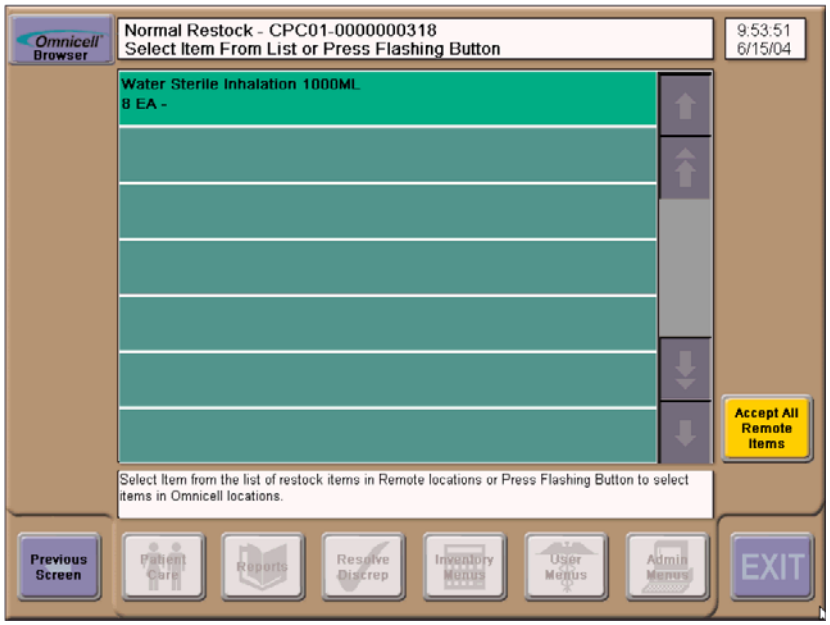

Figure 1-51. Normal Restock, Remote Item List—Accept All Remote Items Button

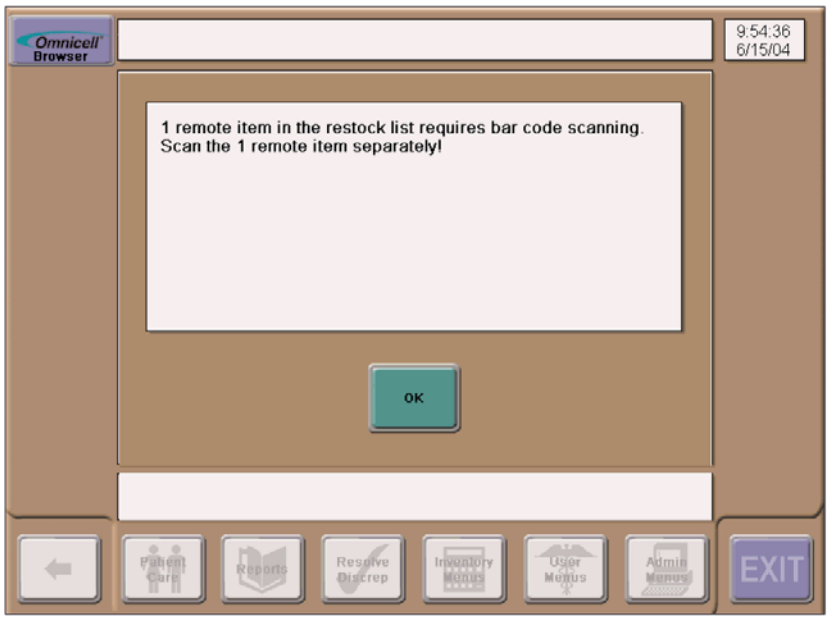

Figure 1-52. Normal Restock, Accept All Remote Items Button—Reminder/Warning Screen

Supplemental Restock

The Supplemental Restock process has been modified to support SafetyStock and related features. As restock reports/labels are not generated for supplemental restocks, only item bar code scans are supported.

Item Bar Code Scan Required/Item or Restock Bar Code Scan Required If set to **Item Bar Code Scan Required** or **Item or Restock Bar Code Scan Required**, the item must be scanned at time of supplemental restock, and only the item bar code is acceptable as a valid scan.

After selecting the item for supplemental restock, the user is prompted to scan the item bar code, and an audible tone sounds. If anything other than a valid item bar code is scanned, a message displayed and an audible error tone sounds. (See "Error Messages" on page 1-42.)

The item bar code scan is required only once per location. If bin confirmation is enabled, the user is prompted to scan the bin bar code, following the item bar code scan. See "Associating Bin Bar Codes" on page 1-50.

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Item Return

Like restock and issue functions, item return scan requirements are set at the OmniCenter, at the item level. This functionality only applies to items that can be returned to their original bin.

Item Bar Code Scan Required/Item or Restock Bar Code Scan Required

If set to **Item Bar Code Scan Required** or **Item or Restock Bar Code Scan Required**, the item must be scanned at time of return, and only the item bar code is acceptable as a valid scan.

When returning the item, the user is prompted to scan the item bar code, and an audible tone sounds. If anything other than a valid item bar code is scanned, a message is displayed and an audible error tone sounds. (See "Error Messages" on page 1-42.)

The item bar code scan is required only once per location, regardless of the quantity removed. If the item location is configured for bin confirmation, the user is prompted to scan the bin bar code after successfully scanning the item bar code.

The override option is not available for returns. However, the user can chose to skip the item, per usual functionality. In this event, a null transaction is sent (Null Type: BR—Failed to scan item during return).

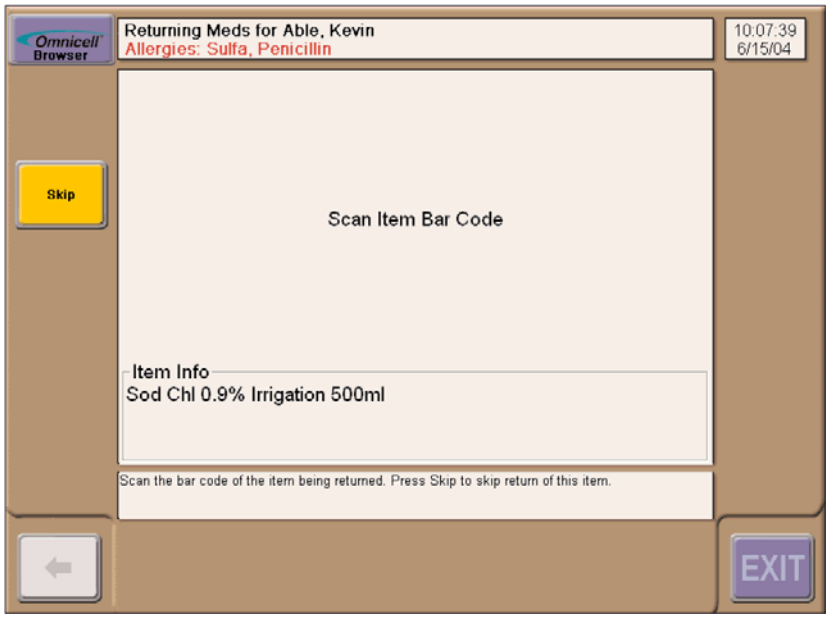

Figure 1-53. Return Meds—Scan Item Bar Code Screen

Bin Confirmation

As an additional safety measure, the facility can also require bin confirmation via bin bar code scan, in addition to, or apart from, the item or restock bar code scan. Bin Confirmation is enabled at the cabinet, and is based on the bin location (see the "Implementation" section for details). When enabled, bin confirmation applies to both restock and item return functions.

The Scan Bin Bar Code screen is displayed after the item is selected, and if applicable, after the user successfully scans the requested bar code (item or restock bar code, as applicable). If anything other than a valid bin bar code is scanned, a message is displayed and an audible error tone sounds. See "Error Messages" on page 1-42.

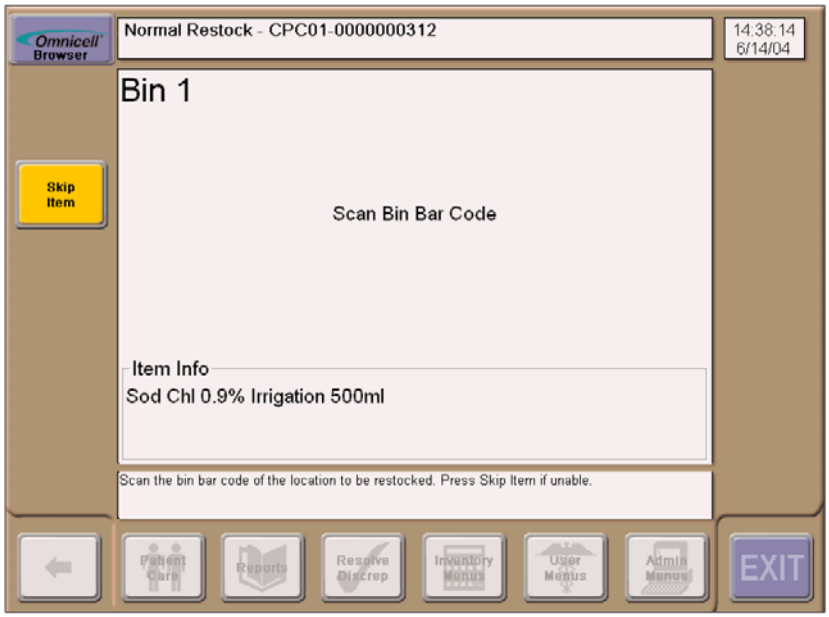

Figure 1-54. Scan Bin Bar Code Screen (Normal Restock)

The override option is not available for bin confirmation. However, the user can chose to skip the item, per usual functionality. In this event, a null transaction is sent (Null Type: CO—Failed to scan bin confirmation label during restock).

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Issue Confirmation

As discussed previously, item issue scan requirements are set at the OmniCenter, at the item level. If **Confirm Issue** is enabled for an item, the user is required to scan the item bar code when removing it from the cabinet during an issue transaction.

Note: Issue confirmation is not supported for items in Anesthesia drawers, Sure-Med Unit Dose compartments or OmniDispenser modules.

When removing the item, the user is prompted to scan the item bar code, and an audible tone sounds. If anything other than a valid item bar code is scanned, a message is displayed and an audible error tone sounds. (See "Error Messages" on page 1-42.)

The item bar code scan is required only once per location, regardless of the quantity removed.

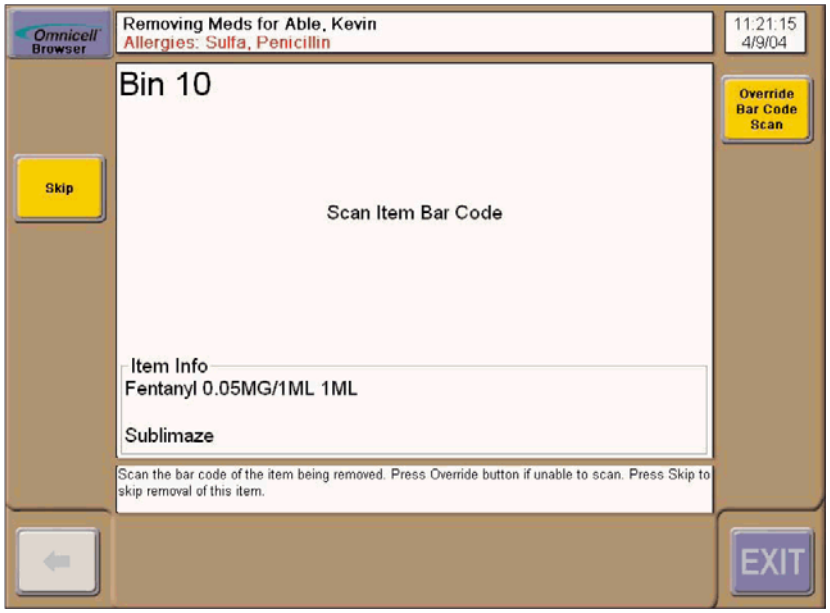

Figure 1-55. Remove Meds—Scan Item Bar Code Screen

If unable to scan the item bar code, the user can override the bar code scan. In this event, the user presses **Override Bar Code Scan**, then is prompted to select one of the following override reasons:

- No bar code
- Unreadable bar code
- Wrong item bar code
- Unknown item bar code
- Other, document with supervisor

Figure 1-56. Override Item Bar Code, Select Override Reason Screen

The user can also chose to skip the item, per usual functionality. In this event, a null transaction is sent (Null Type: BI—Failed to scan item bar code during issue).

Modify Bin

The Modify Bin function has been modified to support the bin bar code confirmation feature, including:

- Associating Bin Bar Codes
- Removing Bin Bar Code Associations

Associating Bin Bar Codes

Associating a bin bar code simply means selecting the bin, and scanning the bin confirmation label to associate the bin bar code with the bin. This association is stored at the cabinet and OmniCenter, until and unless the association is removed. Once a bin is associated, bin confirmation for the item is enabled, and the user is prompted to scan the bin confirmation label during restock and return functions (see the "Bin Confirmation" on page 1-48).

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To associate a bin confirmation bar code, the user selects **Modify Bin**, enters the bin number or opens the bin lid of an assigned item, then scans the bin confirmation label. If the bin bar code is currently available (unassociated), the user is prompted to rescan the bar code to confirm the association, or press **Cancel**.

The bin bar code association is then sent to the OmniCenter, along with a modify bin transaction (XactMisc value of "Bin Conf Assign.")

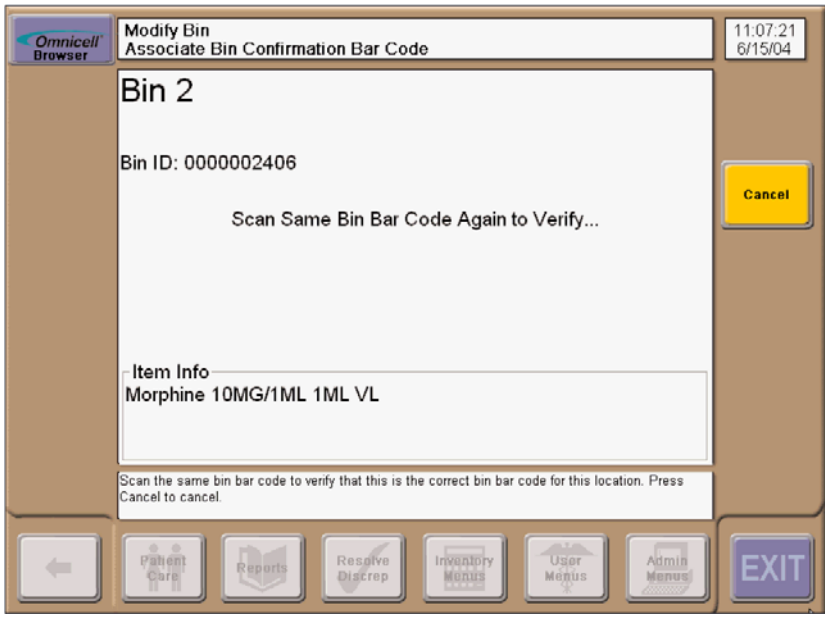

Figure 1-57. Modify Bin, Associate Bin Confirmation Bar Code—Scan Again Screen

If the bin confirmation label is already associated with another item or location, an audible warning sounds and an error message is displayed.

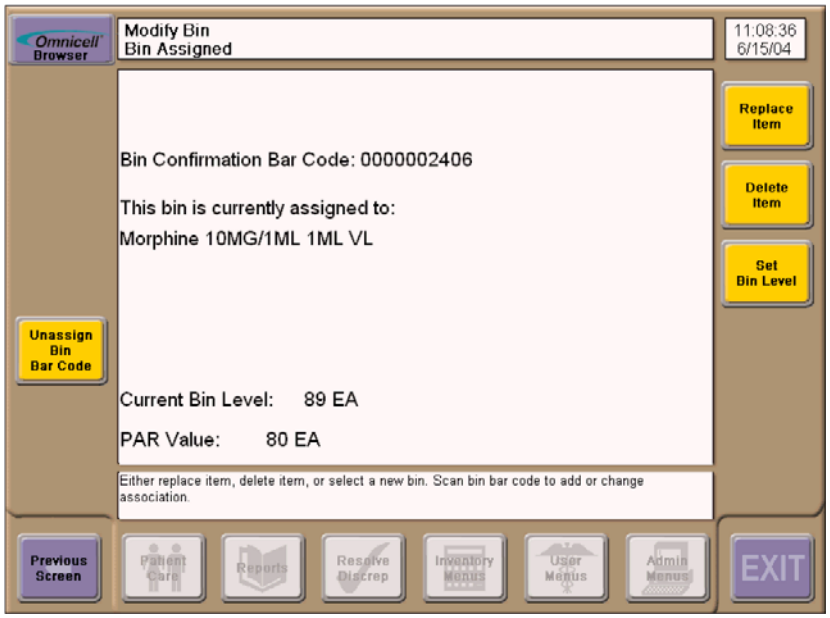

Figure 1-58. Modify Bin, Associate Bin Confirmation Bar Code—Bin Assigned Screen

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The warning shows the item description and bin location currently associated with that bin bar code. The user can the bin bar code or press **Cancel**. If the user rescans the same bar code, the new bin bar code association is sent to the OmniCenter, along with a modify bin transaction (XactMisc value of "Bin Conf Assign").

Removing Bin Bar Code Associations

Bin confirmation bar codes can only be associated with assigned items. The bin confirmation label does not need to be replaced when unassigning an associated item. In this event, the user removes the bin bar code association, then if applicable, re-associates the bin bar code with the newly assigned item.

To remove an association, the user selects **Modify Bin**, enters the bin number or opens the bin lid, and presses **Remove Bin Confirmation**. The user then presses **Confirm** or **Cancel**.

If the user presses **Confirm**, a command is sent to the OmniCenter along with a modify bin transaction (XactMisc value of "Bin Conf Delete").

Figure 1-59. Modify Bin, Remove Bin Association—Verification Screen

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Implementation

This section provides general instructions for implementing SafetyStock at an existing customer facility. These instructions include enabling Restock Confirmation, Issue Confirmation, Automatic Stock-out, and Bin Bar Code Confirmation. However, these features can be used (or not used) independently of one another. For additional information or assistance, contact Omnicell Technical Support.

Overview

These instructions assume that SafetyStock scanners have been installed at the OmniCenter and on all applicable cabinets, and that a supported SATO label printer model has been installed, which prints SafetyStock restock labels.

Implementation requirements for SafetyStock and related features include the following:

- Installing the SafetyStock scanner(s) at the OmniCenter and all applicable Color Touch cabinets (see the "Hardware Implementation" on page 1-58).
- Installing and/or verifying operation of the designated SATO label printer.

Note: See the SATO Printer M84Pro Installation Guide, available on DocuShare (keyword: SATO).

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- Verifying or modifying the OmniCenter database settings as needed:
  - **Administration** tab
    1. Modify or verify Restock Configuration Settings.
    2. Print Bin Confirmation labels, if applicable.
  - **Database** tab > **Global Settings** table

    Enter SafetyStock Option Key under **LICENSE** Resource Type.
  - **Database** tab > **Items** table
    1. Modify Item records as needed.
    2. Make sure all applicable items are standardized.

Note: To properly implement SafetyStock and other bar code related features, all associated items must be standardized. See the Items Database Standardization and Bar Code Support chapters in *OC9000 Technical Release Guide* (P/N 60-0077) for details.

    3. Make sure all applicable items have the necessary bar code associations (Items record, Bar Code section, **Add** button).

Note: Bar Code support is a related, but separate, Omnicell feature. For more information, see the Bar Code Support chapter of the *OC9000 Technical Release Guide* (P/N 60-0077).

    4. Enable Confirm Restock; choose applicable scan setting.
    5. Enable Automatic Stock-out.
    6. Verify/modify Automatic Stock-out Restock Configuration settings.
  - **Database** tab > **OmniSuppliers** table
    1. Verify or modify Automatic Stock-out Restock Default Configurations.
    2. Enable SafetyStock in the **Lic. Features** section.
- Configuring the cabinet software
  1. Modify or verify cabinet configuration options.
  2. Place and associate bin bar code confirmation labels, as applicable.
- Use Case

  SafetyStock nulls to email or text pager.

OmniCenter

These instructions assume that SafetyStock scanners have been installed at the OmniCenter and on all applicable cabinets, and that a supported model of the SATO label printer has been installed, which prints SafetyStock restock labels.

Note: For detailed feature/field information, see the applicable "Software Functionality" section earlier in this guide.

The following instructions assume that all SafetyStock and related features are being implemented.

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Note: If the Option Key is valid and entered correctly, the word Valid is displayed next to the Resource Value field. If the key is not valid or is entered incorrectly, the word Invalid is displayed, and the key must be re-entered.

SafetyStock will not function properly until the Option Key is entered, and the SafetyStock field is enabled on the applicable OmniSupplier record(s).

Skip any steps not relevant to the facility. For example, disregard Issue Confirmation steps, if users will not be required to scan items when issuing them from the cabinet.

Administration Tab

Modifying or Verifying Restock Configuration Settings

1. Log into the OmniCenter (as Omnicell Tech).
2. Select the **Administration** tab, **Setup Administration** Type.
3. Double-click on **Restock Configuration Setup**.
4. Modify or verify the following on the Restock Printing screen:
   a. Under Restock Report Defaults, choose whether or not to **Print Pick Lists**, **Print Restock Reports** and/or **Print Restock Labels by default**, when generating restocks.
   b. Under Automatic Stock-out Override Settings, set or verify the Pre-Restock Window and Post Restock Window.
   c. Under Restock Label Printer, click **Test** to verify that the SATO label printer is printing restock labels properly.
5. Modify or verify the following on the Report Setup screen:
   a. Under Restock Report, set or verify Restock Report type default (**Standard** or **Custom**, etc.) and Restock List sort order default.
   b. Under Pick List, set or verify the Pick List report type default (**Standard**, **By Omni**, etc.) and Pick List sort order and quantity by defaults.
6. Modify or verify the following on the Miscellaneous Restock Settings screen:
   a. Enable or disable the **Generate Restocks** field (selected = Yes, i.e. enabled)
   b. Set or verify the **Days to Accumulate Restock Qtys** field.
   c. Set or verify the **Restock Critically Low Items To** field (**Par** or **Reorder Point**).

Printing Bin Bar Code Labels for Bin Confirmation Function

1. Log into the OmniCenter (as Omnicell Tech or other authorized User Type).
2. Select the **Administration** tab, **OmniSupplier Administration** Type.
3. Double-click **Bin Confirmation Labels**.
4. Select the Number of Pages to Print.
5. Click **Print**.

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Database Tab

Entering the SafetyStock Option Key via Global Settings

1. Log into the OmniCenter (as Omnicell Tech).
2. Select the **Database** tab, **Global Settings** Table.
3. Limit to Resource Type = **LICENSE**, then click Search.
4. Select the SafetyStock entry, then click **Modify**.
5. Enter the Option Key in the Resource Value field then click **Save**.

Note: The Lic. Features, SafetyStock field is grayed out unless a valid Option Key has been entered via Global Settings, LICENSE Resource Type. Once the Option Key is entered, the number of OmniSuppliers included in the license determines how many OmniSuppliers can be enabled for SafetyStock at a given time.

Modifying or Verifying OmniSupplier Records

1. Log into the OmniCenter (as Omnicell Tech/other authorized User Type).
2. Select the **Database** tab, **OmniSuppliers** Table.
3. Select the applicable OmniSupplier record, then click **Modify**.
4. Select **Lic. Features**, then select the **SafetyStock** field to enable the SafetyStock license on the selected cabinet (de-selected, i.e. disabled, by default).
5. Click **Save**.

Modifying or Verifying Item Records These instructions assume that the selected items are standardized and that all associated item bar codes have been added for the item (see Implementation "Overview" and related notes).

1. Log into the OmniCenter (as Omnicell Tech or other authorized User Type).
2. Select the **Database** tab, **Items** Table.
3. Set Limits fields as desired, click **Search**, then double-click the applicable item.
4. Set the **Confirm Restock** field to **No** (default), **Item Bar Code Scan Required**, or Item **or Restock Bar Code Scan Required**, as applicable.
5. Select the **Confirm Issue** field, as applicable, to enable Issue Confirmation (deselected, i.e. disabled, by default).
6. Select the **Auto Restock** field, as applicable, to enable Automatic Stock-out restock generation for the item (deselected, i.e. disabled, by default).
7. Verify or modify **Automatic Stock-out Restock Configuration** default print settings: Print Restock, Print Picklist, Print Label, Normal Printer, and Label Printer fields.
8. Click **Save**.
9. Repeat steps 3-8 for all remaining items.

Modifying or Verifying OmniSupplier Records

1. Log into the OmniCenter (as Omnicell Tech or other authorized User Type).
2. Select the **Database** tab, **OmniSuppliers** Table.
3. Select the applicable OmniSupplier record, then click **Modify**.

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4. Verify or modify **Automatic Stock-out Restock Default Configurations** settings: Print Restock, Print Picklist, Print Label, Normal Printer, and Label Printer fields.
5. Select **Lic. Features**, then select the **SafetyStock** field to enable the SafetyStock license on the selected cabinet (de-selected, i.e. disabled, by default.

Note: If the number of OmniSuppliers enabled reaches the license quantity, the SafetyStock field is disabled on all subsequent OmniSupplier records. In this event, to enable more or different OmniSuppliers, either a new Option Key must be purchased or the **Lic. Features**, **SafetyStock** field must be disabled on one or more SafetyStock-enabled cabinets.

6. Click **Save**.

Color Touch

The following instructions assume that SafetyStock scanners have been installed on all applicable cabinets, that OmniCenter implementation is complete, and that all SafetyStock and related features are being implemented. Skip any steps not relevant to the facility. For example, disregard Bin Confirmation steps, if users will not be required to scan a bin bar code during restock and return functions.

Configuring the Cabinet Software

The following cabinet configuration options are located in the **Omni Config**, **Items** menu.

[ITEMS]

Config Name:	SAFETYSTOCK_RESTOCK
Menu Name:	**SafetyStock Restock Confirmation Support**
Description:	Requires a bar code scan at time of restock for all items configured for Restock Confirmation.
Values:	Yes, No
Default:	No
Implementation:	Set this option to Yes, to enable Restock Confirmation at this cabinet.

Config Name:	SAFETYSTOCK_BIN
Menu Name:	**SafetyStock Bin Confirmation Support**
Description:	Requires a bin bar code scan at time of restock or return for all bins with an associated bin bar code.
Values:	Yes, No
Default:	No
Implementation:	Set this option to Yes, to enable Bin Confirmation at this cabinet.

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Config Name:	SAFETYSTOCK_ISSUE
Menu Name:	**SafetyStock Issue Confirmation Support**
Description:	Requires an item bar code scan at time of issue for all items configured for Issue Confirmation.
Values:	Yes, No
Default:	No
Implementation:	Set this option to Yes, to enable Issue Confirmation at this cabinet.

Setting Up/Associating Bin Bar Codes for Bin Confirmation

These instructions assume that bin confirmation labels (bin bar codes) have been generated at the OmniCenter and printed out.

1. Log into the cabinet (as Omnicell Tech or other authorized User Type).
2. Press **Inventory Menus**.
3. Press **Modify Bin**.
4. Open a drawer, then enter the bin number or lift the bin lid.
5. If not already done, place a new, unassociated bin confirmation label in the bin (label placement/location should be discussed with the facility in advance).
6. Scan the bin confirmation label.
7. At the prompt, scan the bin confirmation label to confirm.
8. Repeat steps 4-7 for all remaining bins requiring bin confirmation.

Hardware Implementation

The following hardware installation procedures can be performed at the customer facility by a qualified Omnicell representative.

Instructions for the following Color Touch cabinet types are included:

- Sure-Med, OmniRx, OmniTT, Half-Cell, and Anesthesia Workstation
- OmniSupplier Color Touch
- OmniCenter and OCRA machines

Note: SafetyStock is only supported on Color Touch cabinets running Omnicell 8100 software (5.5.1.x) or higher.

SafetyStock Scanner Programming Codes

A programming sheet for the scanner (PN 60-1004), titled *REFERENCE CARD, PROGRAMMING CODES, SYMBOL LS4208 SCANNER*, is available electronically through DocuShare or the customer intranet site.

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Patient Safety Use Case

Null Transactions

Omnicell recommends leveraging the OmniCenter email and text pager function with SafetyStock to further enhance this patient safety feature. The OmniCenter can be configured to notify key hospital staff whenever a SafetyStock-related null transaction is generated, such as Failed to Scan Item Bar Code During Issue (BI) or Wrong Item Scanned (BS). See "Null Transaction Types" on page 1-42.

For more information, refer to the "Email and Text Pagers" and "Message Center" chapters in the *Omnicell 10.0 Technical Release Guide* (PN 67-3001).

Configuring Email and Text Paging for Null Transactions

These instructions assume that Omnicell email support has been implemented. (Refer to the "Email and Text Pagers" chapter in the *Omnicell 10.0 Technical Release Guide* (PN 67-3001).

1. Log into the OmniCenter (as Omnicell Tech or other authorized User Type).
2. Navigate to **Administration** tab, **Setup** type, **Message Filter Setup**, then click **Continue**.
3. On the Message Filters subtab of the Message Filter Setup screen, click **Add**.
4. On the General subtab, determine **Priority** and enter a **Message Text** and **Description**.

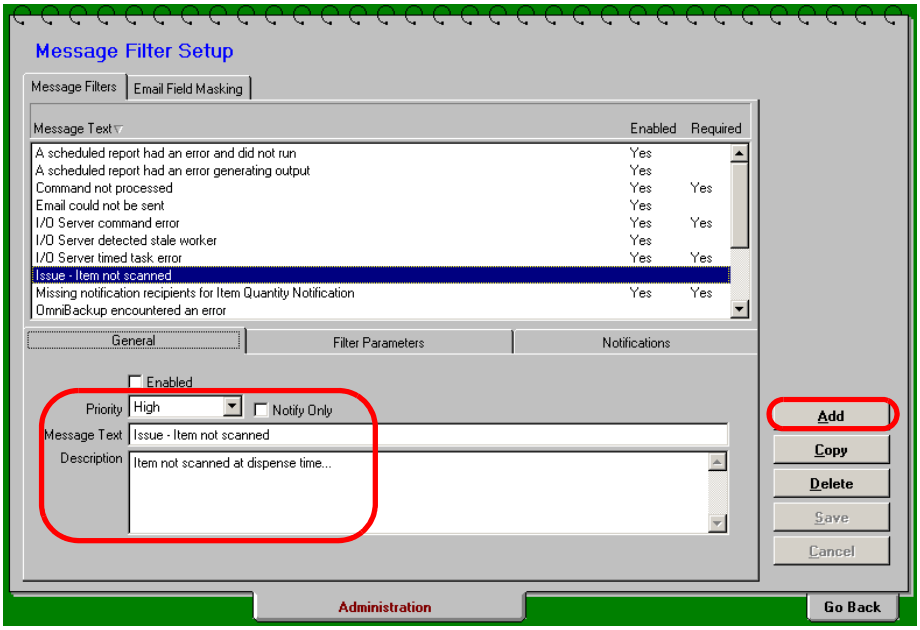

Figure 1-60. Administration Tab, Message Filter Setup—General Subtab, Add

5. On the Filter Parameters subtab, **Command** field, type in a known command or use the ellipses (...) button to search for a command. Click the **Details** button. (See Figure 1-61.)

   For example, XA, entered in the **command** field, is for transaction add.

6. Within the Text Search screen area, click **Add**, then enter the Text Search information.

   For example, entering **nty** in the Limit text search to token field searches for trans subtype and entering **BI** in the Search Text field searches for the 2-character null transaction type.

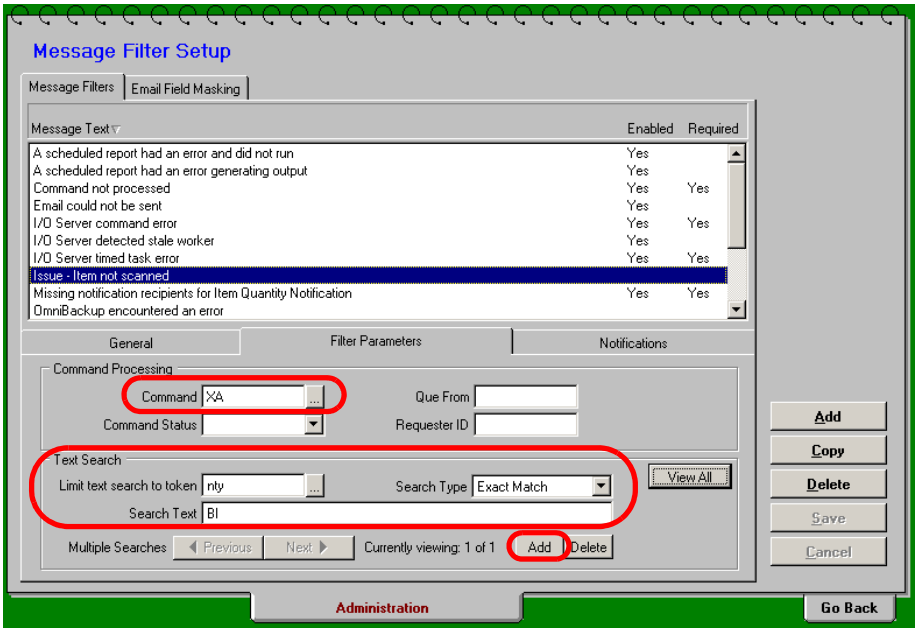

Figure 1-61. Administration Tab, Message Filter Setup—Filter Parameters Subtab, Add

7. On the Notifications subtab, click **Add**.

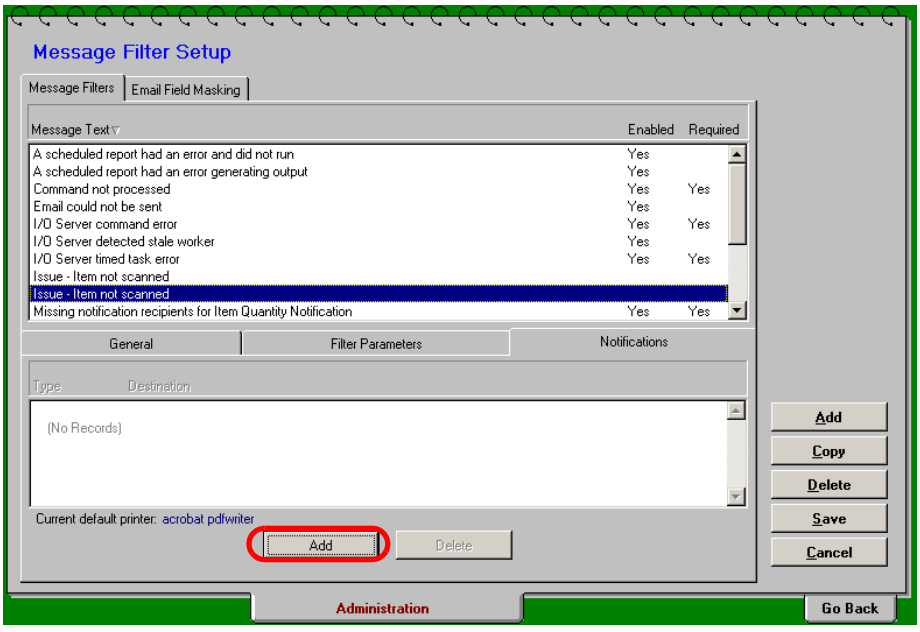

Figure 1-62. Administration Tab, Message Filter Setup—Notifications Subtab, Add

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8. Using the Please Choose search screen, highlight the desired email recipient, then click **Add**.

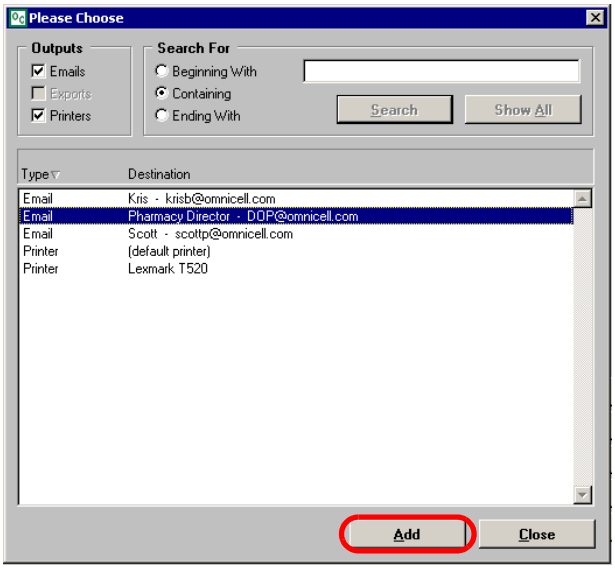

Figure 1-63. Administration Tab, Message Filter Setup—Notifications Subtab, Please Choose

9. Return to the General subtab, select **Enabled**, then click **Save**.

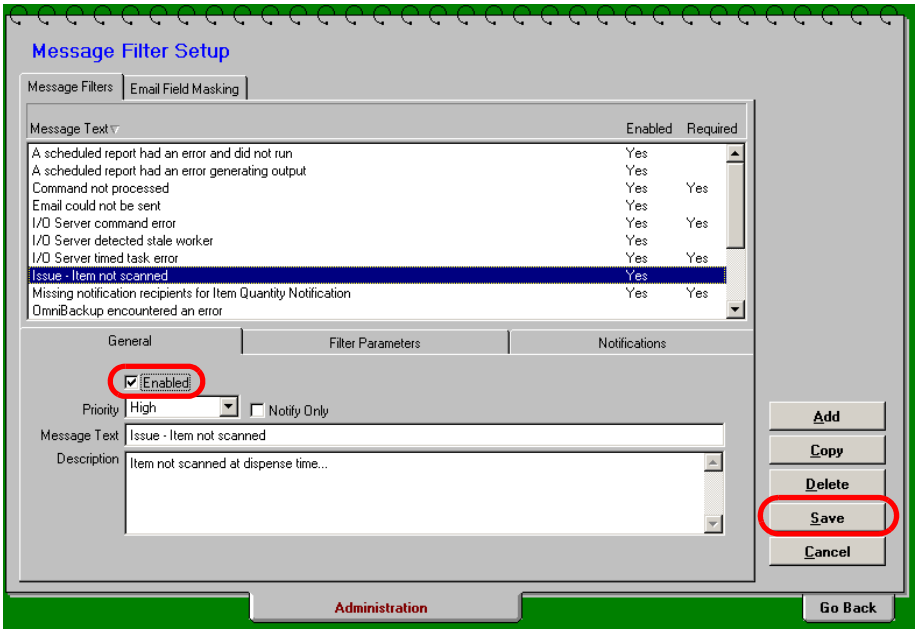

Figure 1-64. Administration Tab, Message Filter Setup—General Subtab, Enable

10. Repeat this process for each additional Null Type, as applicable.

Parts/Kit List

Part numbers listed for individual service kit items are only for reference; they cannot be ordered individually.

At least one #14-1249 server kit must be ordered for each SafetyStock account. This kit has the same contents as kit #20-6031, but also includes the Option Key, SATO printer, and printer labels. If the account already has a SATO printer, the printer can be removed from the order. Server kit #20-6031 should be ordered for subsequent OmniCenter and/or OCRA machines.

Manufacturing kit #20-6032 is used for installing the scanner with different cabinet types. As such, some parts in the kit might not be used with all cabinet types.

See "USB Conversion Process" on page B-1 for conversion kit details.

Kit #	Item #	Item Description	Notes	Qty
12-1266		Barcode Scanner Assembly	Model LS4208, RSS Capable, USB cable	1
	42-1303	Cable Assembly	(RJ12, M-M, 6-pos, flat)	1
	62-6045	Manufacturing Configuration	instructions	0
	65-2015	Serial Number Bar Code Label		1
	70-6048	LS4208 Symbol Scanner		1
	82-6071	RJ-12 Coupler		1
	88-0022	USB Synapse Cable		1
	88-6026	Synapse Adapter Cable		1

Table A-1. Kit # 12-1266

Kit #	Item #	Item Description	Notes	Qty
12-6006		Implant Tracking Kit		1
	12-1266	Barcode Scanner	manufacturing assembly	1
	53-6004	Mount Bracket		1
	67-3025	SafetyStock Technical Guide	overview & implementation steps	0
	70-6006	Scanner Wall Mount		1

Table A-2. Kit # 12-6006

Kit #	Item #	Item Description	Notes	Qty
14-1243		Option Kit, SafetyStock/Item Scan,	server (lower level)	1
	12-1266	Barcode Scanner	manufacturing assembly	1
	62-6002	Procedure Option Kit SafetyStock	see detailed list below	0
	70-6049	Intellistand (scanner stand)	manufactured by Symbol	1
	88-6152	Cable, USB, Scanner,	Symbol, LS4208	1

Table A-3. Kit # 14-1243—used in kit #20-6031, 14-1249

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Kit #	Item #	Item Description	Notes	Qty
14-1244		Option Kit, SafetyStock	Rx & SM, Intellistand	1
	12-1266	Barcode Scanner	manufacturing assembly	1
	53-3081	Rear Plate Bracket		1
	53-7156	Aux Cutout Bracket		1
	62-6002	Procedure Option Kit SafetyStock		0
	65-1057	Comm Port Label	scanner sticker for back plate	1
	70-6049	Intellistand (scanner stand)	manufactured by Symbol	1
	91-2052	Strain Relief		1
	95-6007	Cable Tie		1

Table A-4. Kit #14-1244—used in kit #20-6032

Kit #	Item #	Item Description	Notes	Qty
14-1245		Option Kit, SafetyStock	CTPC, gooseneck, LS4208	1
	12-1266	Barcode Scanner	manufacturing assembly	1
	15-1007	Assy, Gooseneck, OmniSupplier CT	LS4208	1
	53-1109	Bracket, Rear, Wireless, Knockout, CT PC, OmniSupplier		1
	62-6002	Procedure Option Kit SafetyStock		0
	65-1057	Comm Port Label	scanner sticker for back plate	1

Table A-5. Kit #14-1245—used in kit #20-6033

Kit #	Item #	Item Description	Notes	Qty
14-1263		SecureVault SafetyStock Option Kit		1
	12-1266	Barcode Scanner	manufacturing assembly	1
	70-6049	Intellistand (scanner stand)	manufactured by Symbol	1
	88-6152	Cable, USB, Scanner,	Symbol, LS4208	1

Table A-6. Kit #14-1263

Kit #	Item #	Item Description	Notes	Qty
20-1002		SafetyStock Service Kit,	cables, couplers for any product	1
	42-1303	Cable Assy, RH12, M-M, 6-Pos, Flat		1
	82-6071	Coupler, In-Line, RJ12, 6-Pos	ROHS, panel mount	1
	88-0022	Synapse USB Cable		1
	88-6026	Synapse Adapter Cable	LS4X08/16 ft./ coiled/ROHS	1
	88-6152	USB Scanner Cable	Symbol LS408	1

Table A-7. Kit #20-1002

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Kit #	Item #	Item Description	Notes	Qty
20-1003		SafetyStock Service Kit,	gooseneck cradle for OmniSupplier	1
	56-6000	Cap, Gooseneck, Safetystock		1
	56-6002	Holster, Machined, Safetystock	LS4208	1
	91-6002	Gooseneck, M-F, 1/4-20		1
	94-6293	Screw, FHCS,HEX,1/4-20,X,3/4,SS		1
	94-6294	Washer, 1/4,SS	Exstar	2
	94-6295	Washer, 1/4, SS Countersunk	Exstar	1
	95-6035	Corrg, LOOM, Unslit, .750, ID, Black		1

Table A-8. Kit #20-1003

Kit #	Item #	Item Description	Notes	Qty
20-6031		Option Kit, SafetyStock/Item Scan, Server (top level)	installation kit for OmniCenter	1
	14-1243	Option Kit, SafetyStock, Item Scan Server	see detail listing above	1
	67-3018	Item Scan Technical Guide	overview & implementation steps	0
	67-3025	SafetyStock Technical Guide	overview & implementation steps	0

Table A-9. Kit #20-6031

Kit #	Item #	Item Description	Notes	Qty
20-6032		Option Kit, SafetyStock/Item Scan (various cabinets)	installation kit for Sure-Med, OmniRx/ TT, Half-Cell, and Anesthesia Workstation/TT	1
	14-1244	Option Kit, SafetyStock	see detailed list above	1
	67-3018	Item Scan Technical Guide	overview & implementation steps	0
	67-3025	SafetyStock Technical Guide	overview & implementation steps	0

Table A-10. Kit #20-6032

Kit #	Item #	Item Description	Notes	Qty
20-6033		Option Kit, SafetyStock	installation kit for OmniSupplier PC Box	1
	14-1245	Option Kit, SafetyStock, CTPC, Gooseneck, LS4208	see detailed list above	1
	67-3025	SafetyStock Technical Guide	overview & implementation steps	0

Table A-11. Kit #20-6033

Kit #	Item #	Item Description	Notes	Qty
20-6039		SecureVault SafetyStock Field Install Kit		1
	14-1263	SecureVault SafetyStock Option Kit		1

Table A-12. Kit #20-6039

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USB Conversion Process

Replace the existing scanner, coupler, and cable assembly with PS/2 connections using the kit described in this appendix which has USB connections. Remove the used equipment/parts and send them to the Omnicell Midwest Office.

Kits

There are two USB conversion kits.:

Kit #20-6041 includes a pre-programmed scanner.

Kit #14-1279 does not have a scanner. It requires the USB programming sheet (60-1006) to re-program the existing scanner that had used the keyboard wedge cabling. The programming sheet is non-stock and must be accessed by using TechDoc Central or DocuShare.

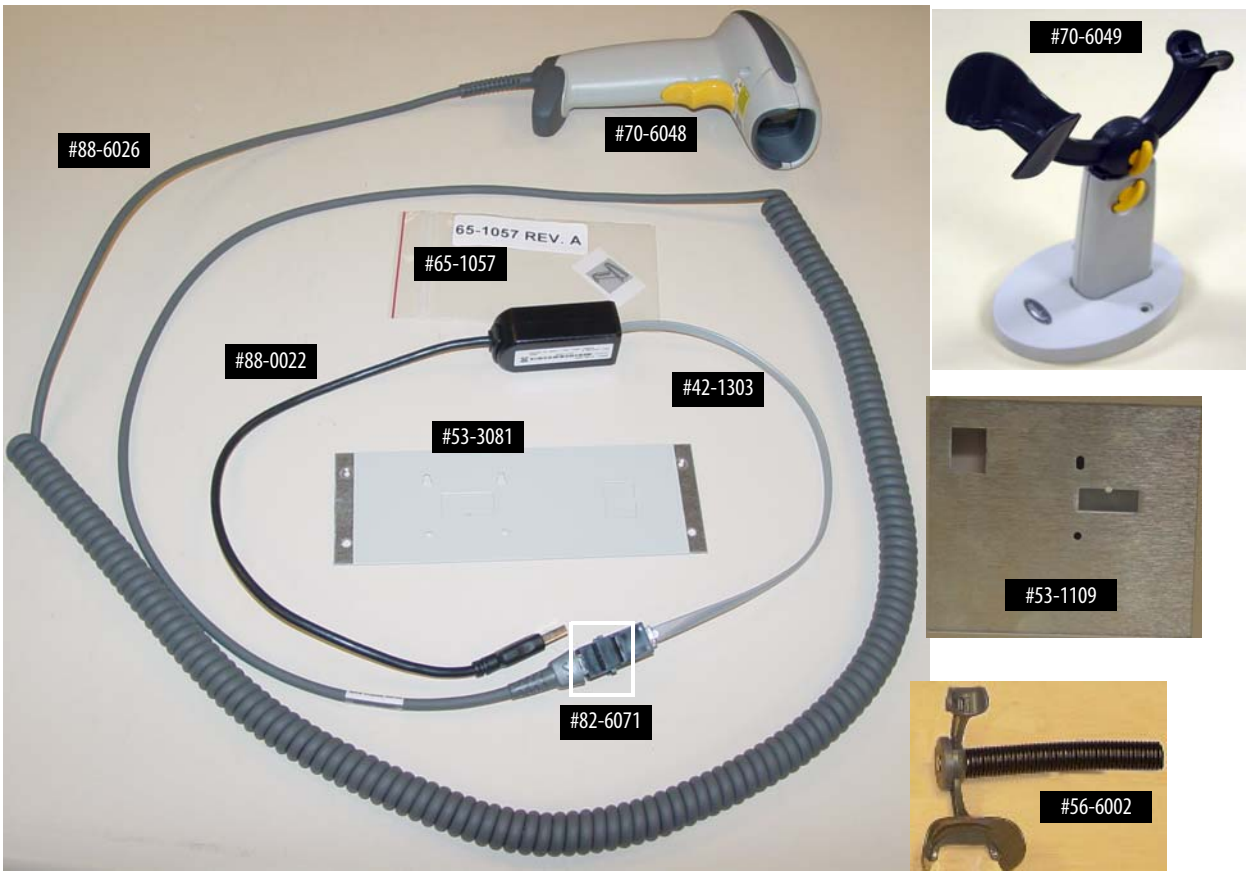

Figure B-1. Parts from Conversion Kit #20-6041

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Part List

Kit #	Item #	Item Description	Notes	Qty
12-1266		USB Configured LS4208Bar Code Scanner	manufacturing assembly	1
	42-1303	Cable Assembly (RJ-12, M-M, 6-Position, Flat)		1
	62-6045	MFG Configuration Instructions		0
	65-2015	Serial Number Bar Code Label		1
	70-6048	LS4208 Symbol Scanner		1
	82-6071	RJ-12 Coupler		1
	88-0022	USB Synapse Cable		1
	88-6026	Synapse Adapter Cable		1
12-1267		MFG ASSY, LS4008 /LS4208, BAR CODE SCANNER USB ADAPTER CABLE		1
	42-1303	CABLE,ASSY,RJ-12,M-M,6-POS,FLAT		1
	62-6045	INSTRUCTIONS,MFG,LS4208 SCANNER,USB CONFIGURATION		0
	82-6071	CONN,COUPLER,6-POS,IN-LINE,RJ-12,PANEL MNT,ROHS		1
	88-0022	CABLE, USB SYNAPSE		1
	88-6026	CABLE,SYNAPSE,ADAPTER,LS4X08,16FT,COILED,ROHS		1
14-1279		CONVERSION,KIT,PS/2 KEYBOARD WEDGE TO USB SCANNER CABLE ONLY		1
	12-1267	MFG ASSY, LS4008 /LS4208, BAR CODE SCANNER USB ADAPTER CABLE		
	53-1109	CT PC Box Rear Bracket Plate		1
	53-3081	Wireless Sled Rear Bracket Plate		1
	65-1057	Console Scanner Label		1
	67-0003	Documentation Instruction Sheet		1
	67-3018	Anesthesia Item Scan Technical Guide		0
	67-3025	SafetyStock Technical Guide		0
	60-1006	USB Scanner Programming Sheet		0
20-6041		LS4208 Scanner Conversion (PS/2 to USB) Kit	with scanner	1
	12-1266	USB Configured LS4208Bar Code Scanner	manufacturing assembly	1
	53-1109	CT PC Box Rear Bracket Plate		1
	53-3081	Wireless Sled Rear Bracket Plate		1
	56-6002	Machined cradle	for gooseneck on PC box frame	1
	65-1057	Console Scanner Label		1
	67-3018	Anesthesia Item Scan Technical Guide		0
	67-3025	SafetyStock Technical Guide		0
	70-6049	Intellistand - base/cradle	for AWS	1

Table B-1. Scanner Conversion Components

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The USB programming sheet (60-1006) should only be used if:

- A USB cabled scanner loses its programming
- Upgrading cabling from a keyboard wedge to USB with kit #14-1279; This kit does not have a scanner—the existing scanner is reprogrammed instead.
- Recovering a USB scanner that was re-programmed incorrectly with the old programming sheet (60-1004)

The keyboard wedge programming sheet (60-1004) is still valid for recovering the programming on scanners using the keyboard wedge. It is non-stock, but available on TechDoc Central or DocuShare.

Scanner Test and Configuration

When reprogramming, the scanner should not be assembled into a cabinet. The Color Touch PC box and electronic sleds in cabinets have limited programming ability. This configuration and test procedure is done in a stand-alone manner using a test PC.

Requirements

All the items in the following list are in the Barcode Scanner Assembly kit (#12-1266). This kit is part of a number of larger kits for specified products (SecureVault, Implant Tracking, SafetyStock, Item Scan).

Part #	Item Description	Notes
42-1303	Cable Assembly	(RJ12, M-M, 6-pos, flat)
65-2015	Serial Number Bar Code Label	
82-6071	RJ-12 Coupler	
70-6048	Symbol Scanner	LS4208
88-0022	USB Synapse Cable	
88-6026	Synapse Adapter Cable	
N/A	Test PC	Lap top or desk top

The Test PC requires:

- MS Windows 95, Windows 98, Windows NT 4.0+, Windows 2000, Windows XP
- 486 Pentium Processor (minimum)
- 16 MB RAM
- Space on hard drive
- CDROM (optional)
- USB port
- Operating system drivers
- Application software—MS Notepad or WordPad

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Check And Test Procedures

Use these steps with the USB upgrade kit (#20-6041) that has a pre-programmed scanner.

1. Check the scanner for a bar code serial number on the handle. This indicates that the USB cabled scanner has been programmed in manufacturing.
2. Install the scanner. See "Hardware Installation" on page 1-2.
3. Optional: Verify interconnect integrity and bar code scanner configuration settings.
   a. Scan the *test* bar codes on the programming sheet (#60-1006).

Note: Scan the bar codes with multiple lines in one sweep.
The Report Synapse Cable bar code should be skipped when testing a (Rio) Smart Cart scanner.

   b. Finish by scanning in scanner information (model, serial number, manufacturing date, and revision) from the box the scanner was shipped in.

Re-Programming Procedures

Use theses steps with:

- USB upgrade kits (#14-1279) without the scanner
- USB scanners that have lost programming
- USB scanners that have been re-programmed with the keyboard wedge program sheet

1. Assemble the test components.
   a. Connect the 10-pin male connector of the Synapse cable (#88-6026) to the female connector in the scanner (#70-6048) handle.
   b. Connect the 6-pin male connector of the Synapse cable (#88-6026) to the 6-pin female connector of the RJ-12 coupler (#82-6071).
   c. Connect the 6-pin female connector of the cable assembly (#42-1303) to the male connector of the RJ-12 coupler (#82-6071).
   d. Connect the 6-pin male connector of the cable assembly (#42-1303) to the female connector of the USB adapter cable (#88-0022).
   e. Disconnect the scanner cabling from the cabinet if already assembled.
   f. Connect the USB Type A male connector of the USB adapter cable (#88-0022) to a female USB connector on the PC.

Note: Upon completing the test assembly, MS Windows prompts for the Human Interface Driver (HID).

2. Install the HID by clicking on **Next** through all the choices, then click **Finish** on the last window.
3. Configure the scanner by scanning the *programming* bar codes on the programming sheet (#60-1006)—from **Set Factory Defaults** to **Enter**.
4. Verify interconnect integrity and bar code scanner configuration settings by scanning the *test* bar codes on the programming sheet (#60-1006).
5. Set the manufacturing assembly custom defaults by scanning the last two programming bar codes—**Write to Custom Defaults** and ***Restore Defaults**.

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6. Verify interconnect integrity and bar code scanner configuration settings by scanning the *test* bar codes on the programming sheet.
7. Disposition the tested hardware.
   a. Disconnect the USB end of the Synapse adapter from the PC's USB port.
   b. Save the NotePad/WordPad file for the scanner as documentation of test certification. Use the Symbol label serial number for the file name.
   c. If the scanner fails the test, do the following:
      1. Mark the scanner as *Rejected*.
      2. Record the problem, noting the mode, test circumstance.
      3. Return the scanner to Omnicell headquarters using the RMA process.
   d. If the scanner passes the test, do the following:
      1. Mark the scanner as *Accepted*.
      2. Install the scanner. See "Hardware Installation" on page 1-2.

Important: Wear a grounded ESD wristband when working with cables inside the electronics tray or PC box.

Conversion Steps

Color Touch PC Box

1. Shut down the PC Box.
   a. Log on to the **Administration** menu.
   b. Press **Exit To Shell**.
   c. Press **OK** on the confirmation window.
   d. Select the **Shutdown On Exit** option in the Exit the Shell section.
   e. Press **Exit The Shell**.
   f. Toggle the power button to the Off (0) position, then disconnect the power cable.
2. Disconnect the current scanner from the RJ-45 coupler on the back plate of the PC box.
3. Remove the screws securing the PC box to the frame, and slide the PC box forward.
4. Use key #2036 to unlock the PC box cover, then remove it.

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5. Disconnect the keyboard wedge cable from the RJ-45 coupler inside the PC box.

Figure B-2. Disconnecting the cable from the coupler inside PC box

6. Disconnect the adapter from the keyboard cable.

Figure B-3. Disconnecting the adapter from the keyboard cable

7. Disconnect the adapter from the motherboard.

Figure B-4. Disconnecting the adapter from the motherboard

8. Set the keyboard wedge cable assembly aside, along with the scanner that was just disconnected.
9. Remove the RJ-45 coupler in the back plate from inside the PC box.

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10. Group the coupler with the removed scanner and cable to be shipped to Omnicell's Midwest Office.
11. Attach the keyboard cable to the motherboard.

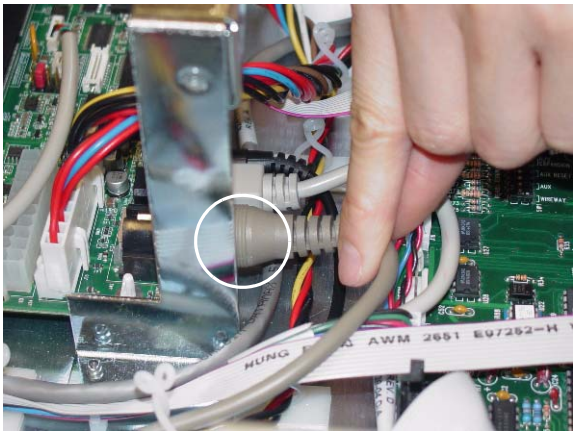

Figure B-5. Connecting the keyboard cable to the motherboard

12. Disconnect the RJ-12 coupler from the conversion kit (#12-1266). The adapter cable (#42-1303) remains connected to the Synapse adapter and the USB cable (#88-0022). The scanner cable (#88-6026) remains connected to the scanner (#70-6048).

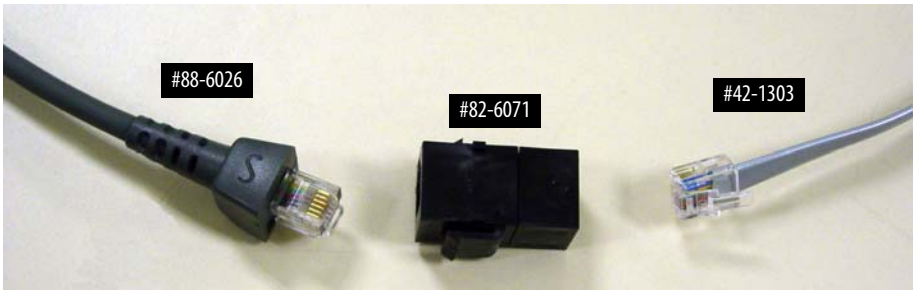

Figure B-6. RJ-12 coupler from kit

13. Insert the RJ-12 coupler (#82-6071) into the back plate from inside the PC box. The larger section faces inside the electronics tray. The connector's outer connector has the locking tab space facing down. The connector's inner connector has the locking tab space facing up.

Figure B-7. Insert RJ-12 coupler

14. Connect the USB Synapse cable (#88-0022) from the kit into the motherboard.

Note: It may be necessary to move any existing USB cables to the lower USB port for ease of installment.

Figure B-8. Connecting the USB cable to the motherboard

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15. Route and connect the adapter cable (#42-1303) to the RJ-12 coupler inside the PC box.

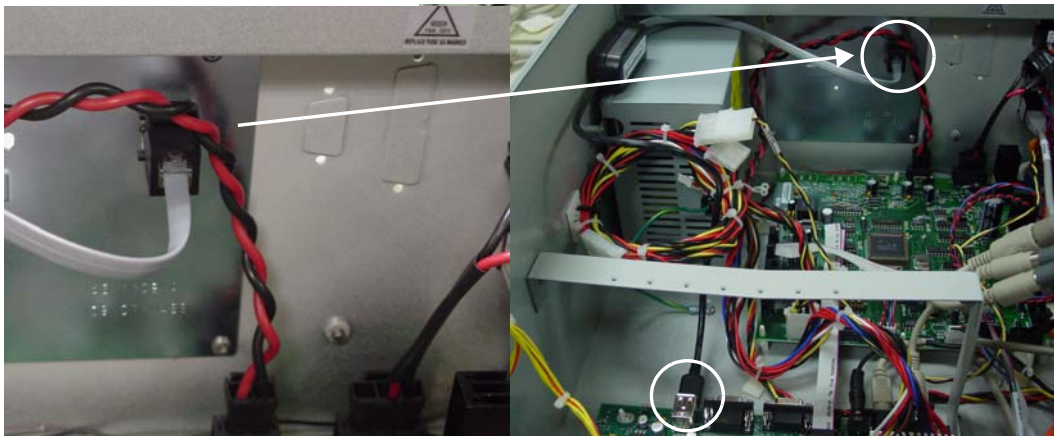

Figure B-9. Connecting the cable to the coupler inside the PC box; complete cable routing in PC box

16. Place the PC box cover into position, then use key #2036 to lock it.
17. Attach the screws securing the PC box to the frame, then slide the PC box drawer into the closed position.
18. Connect the new scanner cable (#88-6026) into the RJ-12 coupler on the back plate.

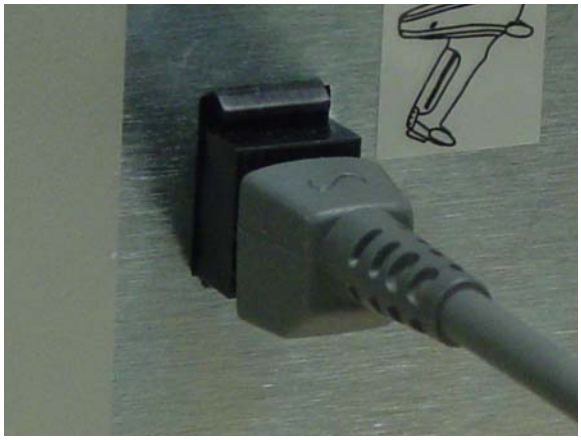

Figure B-10. Connecting the scanner

19. If there is no scanner decal on the back plate, attach the scanner decal (#65-1057) from the kit next to the RJ-12 coupler.
20. If upgrading to a newer scanner, replace the gooseneck holster with the one in the kit (#56-6002). Use pliers or a wrench to replace the gooseneck.

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21. Set the old gooseneck holster with the other parts to be sent to Omnicell's Midwest Office.

Figure B-11. Replaced equipment to be returned to Omnicell

22. Place the replacement scanner in the stand.
23. Reconnect the power cable, then toggle the power switch to the On (1) position on the PC box. Wait for the logon window to be displayed.

Note: Depending on the cabinet's operating system, it may be necessary to install files or drivers associated with the USB Human Interface Devices.

24. Test the scanner by reading a test bar code twice while the logon screen is displayed. The window changes to an error message after the first read, then returns to the logon screen on the second read. The bar code information should be listed in the User ID box.
25. Box the replaced parts/equipment, then send them to Omnicell's Midwest Office.

OmniRx, OmniTT, and Half Cell

1. Shut down the OmniRx, OmniTT or half cell.
   a. Log on to the **Administration** menu.
   b. Press **Exit To Shell**.
   c. Press **OK** on the confirmation window.
   d. Select the **Shutdown On Exit** option in the Exit the Shell section.
   e. Press **Exit The Shell**.

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f. Toggle the power button to the Off (0) position, then disconnect the power cable.

Figure B-12. Disconnecting the power cord

g. Use cam lock key #2036 (p/n #92-1008) to unlock the lid, which lifts up, but remains attached.

2. Disconnect the current scanner from the RJ-45 coupler on the back plate.

Figure B-13. Disconnecting the scanner

3. Disconnect the keyboard wedge cable from the coupler inside the electronics tray.

Figure B-14. Disconnecting the cable from the coupler inside the electronics tray

4. Disconnect the adapter from the keyboard cable.

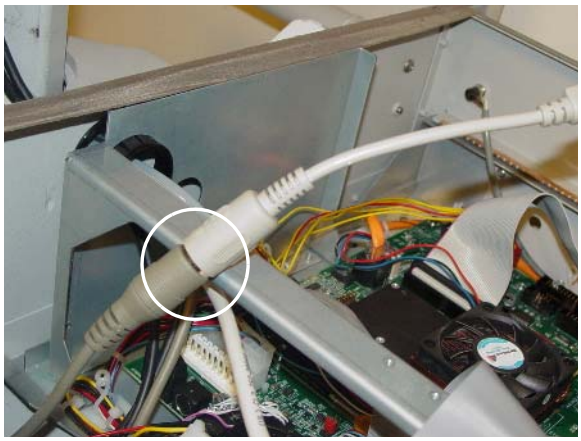

Figure B-15. Disconnecting the adapter from the keyboard cable

5. Disconnect the adapter from the motherboard.

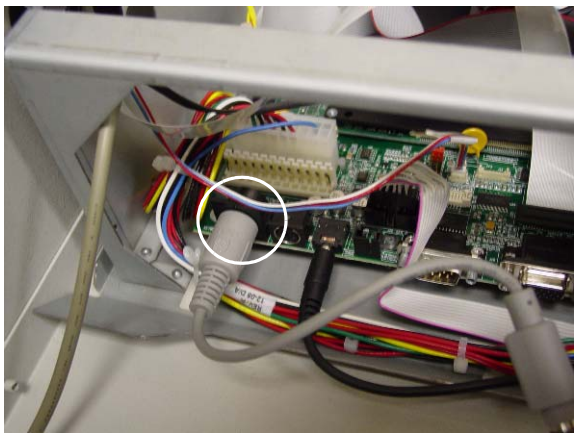

Figure B-16. Disconnect the adapter from the motherboard

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6. Set the keyboard wedge cable assembly aside along with the scanner that was just disconnected.
7. Remove the RJ-45 coupler in the back plate from inside the electronics tray.
8. Group the coupler with the removed scanner/cable for return to Omnicell.
9. Attach the keyboard cable to the motherboard.

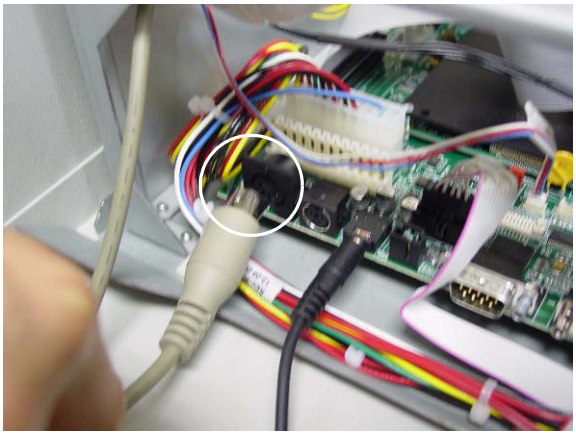

Figure B-17. Connecting the keyboard cable to the motherboard

10. Disconnect the RJ-12 coupler from the conversion kit (#12-1266). The adapter cable (#42-1303) remains connected to the Synapse adapter and the USB cable (#88-0022). The scanner cable (#88-6026) remains connected to the scanner (#70-6048).

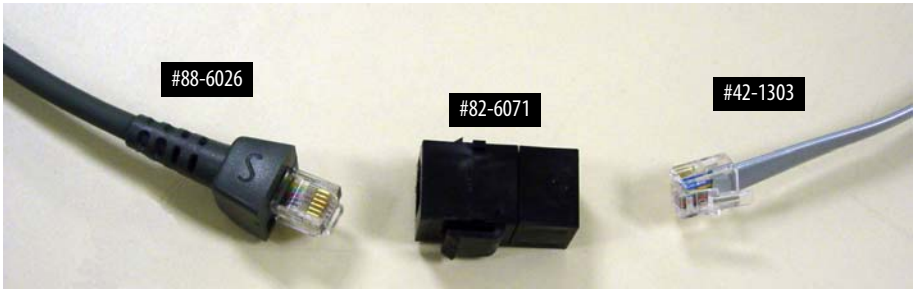

Figure B-18. RJ-12 coupler from kit

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11. Insert the RJ-12 coupler (#82-6071) into the back plate from inside the electronics tray. The connector's larger section faces inside the electronics tray. The connector's outer connector has the locking tab space facing down. The connector's inner connector has the locking tab space facing up.

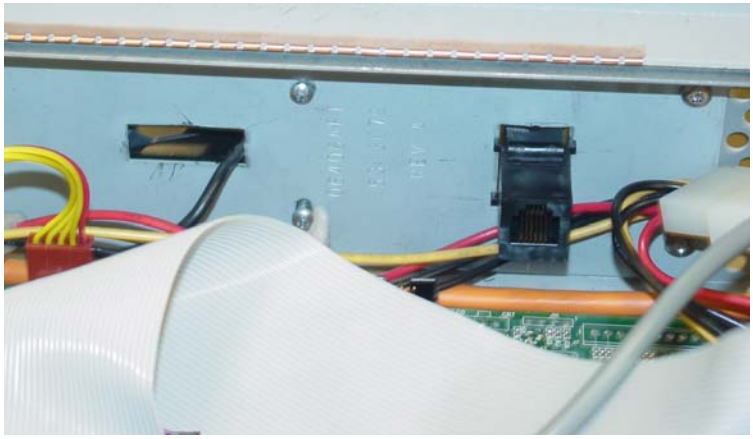

Figure B-19. Inserting the RJ-12 coupler to the back plate from inside the electronics tray

12. Connect the USB Synapse cable (#88-0022) from the kit into the motherboard.

Note: It may be necessary to move any existing USB cables to the lower USB port for ease of installment.

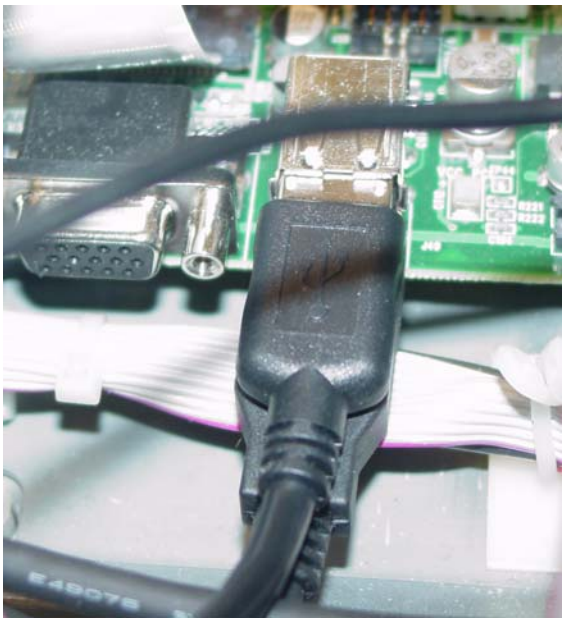

Figure B-20. Connecting the USB cable to the motherboard

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13. Route and secure the adapter cable (#42-1303) to connect the other end to the RJ-12 coupler inside the electronics tray.

Figure B-21. Connecting the cable to the coupler inside the electronics tray

14. Lower the lid, then lock it with the cam lock key #2036.
15. Connect the new scanner cable (#88-2026) into the RJ-12 coupler on the back plate outside the electronics tray.

Figure B-22. Connecting the scanner

16. If there is no scanner decal on the back plate near the RJ-12 coupler, attach the scanner decal (#65-1057).
17. If upgrading to a newer scanner, replace the scanner stand with the one in the kit (#70-6049).

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18. Set the old scanner stand with the other parts to be sent to Omnicell Midwest Office.

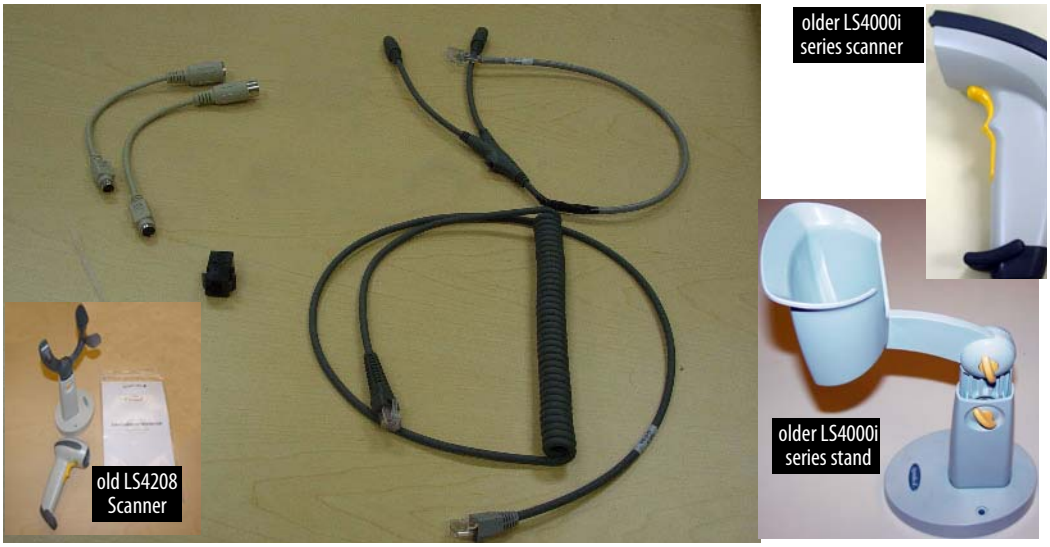

Figure B-23. Grouping the old equipment to send back to Omnicell

19. Place the replacement scanner in the stand.
20. Reconnect the power cable, then toggle the power button to the On (#1) position. Wait for the logon window to be displayed.

Note: Depending on the cabinet's operating system version, it may be necessary to install files or drivers associated with the USB Human Interface Devices.

21. Test the scanner by reading a test bar code twice while the logon screen is displayed. The window changes to an error message after the first read, then returns to the logon screen on the second read. The bar code information should be listed in the User ID box.
22. Box the replaced parts/equipment, then send them to Omnicell's Midwest Office.

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Glossary

Automated Stock-out Restock Selective Restock that is automatically initiated when an item is out-of-stock in an OmniSupplier.

bar code The machine-readable code placed on an item that identifies certain properties of the item. Typically this will include product identification information using the product's NDC, UPC, or Item ID. Other information may include lot number and expiration date, although this type of information is not supported by the current release.

Bar Code Bin Confirmation (SafetyStock Bin Confirmation; SafetyStock BC)

A unique bar code identifier, specific to each designated OmniSupplier bin location. Scanning the Bin Confirmation Label Bar Code provides independent confirmation that the location where the item is to be placed is the correct bin location. This is of particular principle value for those bin locations that do not have access limited by a lid (such as by sensing or locking) or a dedicated location (such as an OmniDispenser dispenser).

Bar Code Issue Confirmation (SafetyStock Issue Confirmation; SafetyStock IC)

The process of requiring the scanning of a product bar code at the time an item is removed from an OmniSupplier bin location. This would be done as an optional, second check to confirm that the correct item has been selected from the cabinet for patient administration. Typically this configuration is used for single, unit-of-issue items in less secure locations (such as open matrix drawers, shelves) where there is a greater opportunity for human error during the item selection process.

Bar Code Restock Confirmation (SafetyStock Restock Confirmation; SafetyStock RC)

The process of scanning a bar code on either the individual item or the restock label at the time an item is added to a cabinet bin location.

Bin Confirmation Label The label placed on each OmniSupplier bin location to confirm the bin location with a bar code scan at the time an item is restocked or returned to that bin location. The label contains a unique bar code generated by the OmniCenter and associated with the particular bin location with the Modify Bin function.

Bin Confirmation Label Bar Code The bar code on the Bin Confirmation Label. It contains a unique prefix (~) to differentiate the number in the bar code from other bar codes scanned at the OmniSupplier.

client application Any application (such as OmniCenter) that creates a print job. The client application can be local (on the print server) or it can be on a client computer on the network.

connecting to a printer Connecting to the share on the computer that created the printer.

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creating a printer Connecting to the print device, either over the network or over a serial or parallel port and naming the printer and installing the printer driver.

direct thermal printing A process in which special paper is heated by the print head which turns printed script black.

item bar code The bar code that is placed on the individually packaged item by either the vendor/distributor (i.e., Product Bar Code) or by the hospital (i.e., Prepack Bar Code) using some type of bar code packaging and labeling device. The bar code identifies the item using the product's NDC, UPC, or Item number depending upon whether the item is a pharmaceutical or supply item.

item ID (identification)

The unique number used by Omnicell pharmacy and supply inventory systems to identify a particular product in the system. This number is usually the same for a product that is identical from multiple vendors.

network-interface printers Print devices connected directly to the network by means of their own network cards.

NDC (National Drug Code)

A unique number used for pharmaceutical products, consisting of three components standardized at the national level. The first component (4-5 characters) is called the Labeler Code; it identifies the vendor who manufactures and/or packages the drug item. The second component (4 characters) is the Product Code; it identifies the specific product (drug identity, dose/concentration, dosage form) of the specific drug. The third component (2 characters) is the Package Code; it identifies the type of packaging (e.g., bottles of 100, cartons of 25, boxes of 100 unit doses). The Product Code and Package Code used for a specific product are unique to a particular vendor. Therefore, two companies with exactly the same product (furosemide 40mg tablets in boxes of 100 unit dose packages) will have a unique number for each of the three NDC components. The combination of the three components uniquely defines each drug product on the market. For product identification purposes, only the first two components (Labeler Code and Product Code) are necessary to identify a product. The Package Code is necessary for inventory and billing purposes.

OmniScanner Shelf Label Bar Code A bar code containing the item ID for a supply item preceded by the pipe character (|). This is used by the OmniScanner to identify items for issue. Scanning the OmniScanner Shelf Label Bar Code is the equivalent of pressing the button on an OmniSupplier shelf location.

OPC (Omnicell PharmacyCentral)

An automated drug storage, retrieval, and dispensing system designed to automate the Central Pharmacy processes associated with the receipt, storage, and dispensing of pharmaceuticals.

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prepack label bar code The bar code that is placed on an item label for items repackaged from bulk by the hospital. The bar code usually identifies the item by using the product's item number. For purposes of distinguishing this bar code from other bar codes, the bar code must consist of the item ID number preceded by a forward slash.

If a pharmacy does not use a forward slash (/) as a prefix for the item number on the pharmacy prepack item, the bar code on the prepack will only consist of a number. It then must be associated with the appropriate item ID in the OmniCenter Item database.

print client The computer that creates the print job sent to a print server. The client can be a remote client sending the print job to the print server over a LAN, or the client can be on the print server itself as a local client. NOTE: Omnicell Remote Access (OCRA)—Terminal Services Client printing is considered printing from a local client.

print device The actual hardware device that produces printed output (what is called a printer in casual conversation).

printer (or logical printer)

The software interface between the operating system and print device. The printer determines how the document gets to the printing devices (for example, by means of a local port or to a remote print share) and to other parameters of the printing process. A single printer can send print jobs to multiple print devices, and multiple printers can send jobs to a single print device.

printer drivers Software programs that enable applications to communicate fully and properly with print devices. Each print device can require unique codes and commands to make available its special features, such as two-sided printing or custom paper sizes.

print jobs Source code that contains both data and commands for print processing.

print server The computer that connects one or more print devices to the network and shares them with other networked computers.

print spooler A collection of dynamic-link libraries (DLLs) that receives, processes, schedules, and distributes print jobs; spooling is only one of the processes performed by the spooler.

Product Label Bar Code The bar code placed on an item label by the commercial vendor or supplier. It will usually contain the NDC number (for pharmaceuticals) or UPC number (for supply items) within the bar code identifier.

queue A group of documents waiting to be printed.

rendering Creating a print job. An application calls the graphics device interface (GDI). GDI takes the document information sent by the application, calls the printer driver associated with the target print device, and creates a print job in the printer language of the print device. The print device has firmware that interprets the submitted printer language and creates a bitmap for each page.

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Restock Label A label generated at the time a product is identified for restocking. It contains information about the item to be restocked (i.e., drug description, quantity, bar code of item ID) and the specific OmniSupplier location indicated for restocking.

Restock Label Bar Code The bar code on the restock label that is either generated by Omnicell PharmacyCentral at the time an item is picked or by the OmniCenter (for non-Omnicell PharmacyCentral accounts) at the time of initiating a Normal or Selective Restock at the OmniCenter.

SafetyStock A bar code confirmation system that promotes patient safety by minimizing the opportunity for stocking and dispensing errors. SafetyStock users scan bar codes to confirm the identity of medication and supply products for restock, selected issues, and returns to the cabinet.

SafetyStock Labels The labels that may be generated at the OmniCenter as part of the normal restock process. These labels will contain information normally found on the existing Pick/Restock reports. In addition, the OmniSupplier-specific restock label for a given item will contain a bar code label comprising the item ID number preceded by a period (.).

Selective Restock The ability to identify items at the OmniCenter that are needed for cabinet restock outside of the normal restock process. Once identified, the OmniCenter will send appropriate Restock List information to the designated OmniSuppliers. Other than the selective identification of items for restock at the OmniCenter, the other associated inventory processes will be the same as for a Normal Restock (e.g., pick/restock labels and reports; restock ID/list creation).

Supplemental Restock Process for products that have an Item Bar Code if SafetyStock is enabled. This bar code will have to be scanned at the time of performing the normal supplemental restock to confirm that the correct item is being restocked.

Supplier The Color Touch or Blue Screen Supplier cabinet systems.

Thermal Transfer Printing A process in which heat is transferred to a ribbon causing the toner or ink on the ribbon to be transferred to the paper.

Transaction ID A unique number used by the Omnicell PharmacyCentral system to identify the particular transaction associated with the restocking of a particular item. It is specific for the item being restocked, the specific location where the item is to be restocked, and the specific date and time when the restock activity was initiated.

Transaction ID Bar Code The bar code of the OPC Transaction ID. This bar code appears on the OPC Restock label along with the OPC Restock Bar Code and the OPC Item Quantify Bar Code. All three of these bar codes have a special character identifier to distinguish them from Item ID bar codes.

UPC (Universal Product Code)

A unique number to identify all supply items. It may also be used as the identifying code for selected over-the-counter (OTC) drugs in retail packaging.

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XAdmin A SATO utility used to make configuration and setting changes on the SATO printer.

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